

**The impact of training on the knowledge of health and
social care staff working in learning disability services**

Karen McKenzie, MA., MPhil.

**Submitted for the Doctorate in Clinical Psychology
University of Edinburgh
2000**

Declaration

I hereby declare that:

1. The thesis has been composed by myself;
2. With the exception of the advice and support of those mentioned in the acknowledgement section, the thesis is my own work;
3. The thesis has not been submitted in candidature for any other degree, postgraduate diploma or professional qualification.

Karen McKenzie, MA., MPhil.

CONTENTS

	<u>Page number</u>
Acknowledgements	i
Abstract	ii
Chapter one	
1.1 Introduction: Factors impacting on service quality for individuals with a learning disability	1
1.1.1 Recent developments in services for individuals with a learning disability	1
1.1.2 Factors impacting on service quality	3
1.1.3 Models of staff performance	3
1.1.4 Staff attributions	5
1.1.5 The role of staff knowledge	8
Chapter two: Study 1	
2.1 Introduction: Staff knowledge of the defining features of a learning disability	11
2.1.1 Defining a learning disability	11
2.1.2 Knowledge of learning disability	14
2.1.3 Aims of Study 1	15
2.2 Method: Study 1	15
2.2.1 Assessing staff knowledge of a learning disability	15
2.3 Results: Study 1	18
2.3.1 Study 1: Knowledge of a learning disability	18
2.4 Discussion: Study 1	23
2.4.1 Study 1: Knowledge of a learning disability	23
Chapter three: Study 2	
3.1. Introduction: Study 2	27

	<u>Page number</u>
3.1.1 Health care needs and staff knowledge	27
3.1.2 Aims of study 2	29
3.2 Method: Study 2	29
3.2.1 Study 2: Assessing GP knowledge of a learning disability and the relationship with practice	29
3.3 Results of study 2	31
3.3.1 Study 2: Knowledge of General Practitioners and the relationship with practice	31
3.4 Discussion: Study 2	33
3.4.1 Study 2: GP knowledge and implications for practice	33
Chapter four: Study 3	
4.1 Introduction: Study 3	38
4.1.1 Staff knowledge and the management of challenging behaviour	38
4.1.2 The impact of others on challenging behaviour	40
4.1.3 Staff responses to managing challenging behaviour	41
4.1.4 Summary	43
4.1.5 Aims of Study 3	43
4.2 Method: Study 3	44
4.2.1 Study 3: Staff knowledge about the meaning and management of challenging behaviour	44
4.3 Results: Study 3	47
4.3.1 Study 3: Staff knowledge about the meaning and management of challenging behaviour	47
4.4 Discussion: Study 3	53
4.4.1 Study 3: Staff knowledge about the meaning and management of challenging behaviour	53

Chapter five: Study 4

5.1	Introduction: Study 4	57
5.1.1	Duty of care	57
5.1.2	Enabling client choice	58
5.1.3	Summary	60
5.1.4	Aims of study 4	60
5.2	Method: Study 4	61
5.2.1	Study 4: Knowledge of duty of care and its relationship with staff practice	61
5.3	Results: Study 4	66
5.3.1	Study 4: Knowledge of duty of care and its relationship with staff practice	66
5.4	Discussion: Study 4	70
5.4.1	Study 4: Duty of care	70

Chapter six: Study 5

6.1	Introduction: Study 5	74
6.1.1	Factors impacting on service quality	74
6.1.2	Staff education and training	74
6.1.3	Summary and aims	78
6.2	Method: Study 5	79
6.2.1	Study 5: The impact of training on staff knowledge	79
6.3	Results: Study 5	83
6.3.1	Study 5: The impact of training on staff knowledge	83
6.4	Discussion: Study 5	90
6.4.1	Study 5: The impact of training on staff knowledge	90
6.5	Limitations of study 5	95
6.6	Methodological limitations of the thesis	97
6.6.1	Limitations of questionnaires	98

	<u>Page number</u>
6.6.2 Statistical limitations	102
6.6.3 Sample size	102
6.6.4 Multiple testing	102
6.6.5 The use of parametric statistics	103
6.6.6 The impact of knowledge on staff practice	103
6.7 Recommendations for future research	104
6.8 Conclusion	105
7.1 References	106
 Appendix 1: Survey of General Practitioners opinion questionnaire	 iii
 Appendix 2: Evaluation of the impact of training on staff knowledge: Staff questionnaire	 iv
 Appendix 3: Staff evaluation of the quality of training: questionnaire	 vi
 Appendix 4: Independent staff evaluation of training: results	 vii
 Appendix 5: Publications from thesis	 xxiii

Acknowledgements

I would like to acknowledge the assistance of a number of people: the staff who kindly participated, without protest, in the studies; Donna Paxton, community learning disability charge nurse, who provided much of the staff training jointly with me; Professor Bill Lindsay for his advice, encouragement and insistence that I attempt the doctorate in the first place; George Murray for all his support and my daughters Aja and Kara Murray for their tolerant shrugs that said 'Forget tea, mum's doing her doctorate again.'

Abstract

The thesis examines the level of knowledge of health and social care staff, working in learning disability services in the following areas: knowledge of what a learning disability is; the definition of challenging behaviour and factors important in its management; duty of care to clients and how this would be applied to scenarios that are typical of those encountered in daily work and the health care needs of people with a learning disability. Overall, the study found that levels of knowledge were relatively low in all areas examined. The second part of the thesis examined the impact of a one day course on levels of staff knowledge (n = 59) as compared with a control group who did not receive training. It was found that training led to a significant increase in knowledge in the trained group on all factors but one. This was the identification of the main factors important in responding to challenging behaviour. In relation to this, staff appeared to identify only those factors which would seem to be most relevant in their daily work eg health staff identifying psychological approaches, day care and residential staff identifying reactive strategies. Gains in knowledge were found to be similar in those groups followed up immediately, 3-6 and 6-12 months after training. No significant differences in scores between baseline and follow-up were found for the group who had not received training.

Chapter One

1.1 Introduction: Factors impacting on service quality for individuals with a learning disability

1.1.1 Recent developments in services for individuals with a learning disability

The early 1960's saw the beginnings of a radical shift in the philosophy and policy relating to the care of people with learning disabilities. A service which had been dominated since the 1900s by the long-stay institution was to be replaced by a range of community-based services (Caine et al., 1998). This resulted in people who were felt not to require specialised medical or nursing care living at home or in small scale home-like units.

This changing philosophy of care and resultant change in practice was largely based on the principle of normalisation (Wolfensberger, 1972). The Swedish writer Nirje (1969) conceptualised normalisation as ensuring that the lifestyles of, and opportunities for, people with a learning disability were as similar as possible to those of other people in society. Wolfensberger (1972) elaborated upon this concept, and despite difficulties in interpretation (Wolfensberger, 1983), criticism that the concept treats people with a learning disability as a homogeneous group (Gilbert, 1993) and the danger that normalisation is seen as the only basis for developing services (Barr, 1995), 'Normalisation' has remained the short-hand term representing a whole philosophy of care for people with a learning disability.

This new philosophy was encapsulated by the White Paper 'Better Services for the Mentally Handicapped' (1971) which set out government policy and service recommendations for the care of people with a learning disability. One of these was that children and adults with a learning disability should not be segregated unnecessarily from other people of a similar age or from the general life of the local community. A radical change had therefore occurred from viewing individuals with a learning disability

as patients to people for whom community based living and services based on a sociological/educational model were deemed most appropriate.

Similarly service aims shifted from the provision of sheltered communities to facilitating autonomy, independence and integration into the general community. Tyne & O'Brien (1981) developed the concept of the 'Five Accomplishments' which outlined the five criteria by which community services could be judged in terms of the principles of normalisation. These were: facilitating community presence; enabling client choice; ensuring clients were treated with respect; promoting meaningful relationships and competence.

The move from largely medically-orientated institutions to community settings has been paralleled by an increasing focus on the social model of care for individuals with a learning disability. As a consequence, the professional day to day support of people with a learning disability changed from being the almost exclusive remit of health professionals to that of social care staff. The development of community learning disability teams was one of the major means of implementing community care policies, with health professionals often being the motivators for change (Brown & Wistow, 1990).

The role of the community learning disability team has, however, changed markedly since initial developments in the 1980s when it served both as a champion for and a response to community care (Brown & Griffiths, 1990). With the implementation of the NHS Community Care Act (1990) the previous role that community learning disability teams played in strategic and individual service planning and development was largely undertaken by local authority care managers and joint commissioning structures (Greig & Peck, 1998). These legislative changes have created the need for close inter-agency co-operation and has also highlighted the need for organisations to have a shared knowledge base of the characteristics and needs of people with a learning disability

(Caine et al., 1998), not least to ensure that services have the same criteria in deciding whether someone is best served by learning disability or other services (Burton, 1997).

Both health professionals and social care staff share the common goal of caring for and supporting people with a learning disability. As more individuals with a learning disability are supported in community homes, a range of demands are placed on both social care staff and health professionals and the knowledge base required to successfully meet these demands becomes apparent. The quality of many community based services relies heavily on the skills and efficiency of staff (Porterfield, 1987; Rose, 1995; Hastings, 1995), however, a number of other factors can also impact on service quality. Some of these are outlined below.

1.1.2 Factors impacting on service quality

Research suggests that there are a number of varied and complex factors which can potentially impact on the quality of service provided to clients with a learning disability. The current thesis will focus on only two of these factors: the role of staff knowledge and the impact that a one day training course has on knowledge levels. Initially, however, a wider examination will be made of some of the other factors which have been identified as relevant in relation to staff practice.

1.1.3 Models of staff performance

It is argued by Cullen (2001) that any attempt to address poor service quality necessitates taking the many elements of a service and the context within which it operates into account. A number of models have been developed in an attempt to encompass some of the many factors which may impact on staff performance. Reid et al. (1989) developed a model which emphasises some basic processes. Firstly, the role and tasks of staff must be clear, secondly systems must be developed to monitor performance and to determine if these tasks are being met. The system must have a means of rewarding good performance and addressing poor performance. In the case of poor

performance it is necessary to determine the cause of this. If it results from a lack of staff knowledge or skills, training can be provided. If it results from other factors e.g. organisational, social, resource, managerial or attitudinal, these must be addressed accordingly. A variant of this basic model is also implicit in work by other authors interested in the barriers to effective staff performance.

La Vigna et al. (1994) have developed the Periodic Service Review in order to improve service quality and staff performance. This model is based on the application of applied behavioural analysis to organisational settings and involves the following components:

- Developing performance standards i.e. operationally defined desired outcomes and processes, all of which contribute to the quality of the service.
- Performance monitoring i.e. the methods by which the service can establish if it is achieving its goals.
- Supervisory and management feedback i.e. this is based on the outcome of the performance monitoring and is used to maintain and improve service quality.
- Staff training i.e. this is provided to ensure the staff have the core skills and knowledge to achieve the service goals competently.

La Vigna et al. (1994) suggest that a lack of staff training has often been focused on as the main reason for poor staff performance. They argue that training is necessary but not sufficient to increase service quality and that it can not be used in isolation from the context of the organisation and the conditions that staff work in. Hastings & Remington (1994) also acknowledge that there are a number of different factors which influence staff practice, in this case in relation to challenging behaviour:

- Staff beliefs about the behaviour itself, why it occurs (attributions) and the way to intervene.
- Formal aspects of the service e.g. policies and procedures, reward schemes.
- Informal aspects of the service e.g. peer pressure, advice from colleagues, social acceptance.

- Contingencies associated with the behaviour itself e.g. anger, distress may result in avoidance behaviours.

All of the models outlined above acknowledge that staff knowledge and skills are only two in a range of factors that impinge on staff performance. Emerson et al. (2000) review a number of additional factors which have been identified as important. These include: a failure in the organisation resulting in inadequate management structures and procedures, limited leadership and a lack of commitment, a lack of adequate resources, conflict between personal and service ideologies and poor organisation within the client home. Another major factor which has been increasingly identified as potentially important in influencing practice and which will be addressed in more detail below is staff attributions

1.1.4 Staff attributions

Attribution theory examines individual explanations for behaviour and one hypothesis is that our attributions impact on our responses to that behaviour. Early research has suggested that attributions have some predictive validity in terms of behaviour (Ajzen & Fischbein, 1977). Similarly, attribution theory has been applied to staff behaviour, with an underlying assumption that attributions that staff make about the causes of behaviour influence how they respond to it. The model also suggests a role for staff emotional responses, predicting that behaviour which is seen as deliberate is likely to result in a negative emotional response in staff and a reduced likelihood of offering support (Stanley & Standen, 2000).

Recent research in learning disability services which examines staff attributions, attempts to identify the relationship between these and staff behaviour. In a series of studies in relation to challenging behaviour, Hastings and colleagues found that staff respond to such behaviour with a range of strong, negative emotions e.g. anger, disgust (Hastings & Remington, 1994). The research also focused on attributions about challenging

behaviour in experienced and inexperienced health and social care staff. This indicated that nearly three quarters of participants viewed clients' challenging behaviour as intentional and that attributions differed significantly between experienced and inexperienced staff (Hastings et al., 1997; Hastings, 1995). The authors link this with staff practice by suggesting that staff may respond differently to the same episode of challenging behaviour depending on their attribution about its cause, and argue that inappropriate beliefs about the causes of behaviour are likely to result in inappropriate interventions being used (Hastings & Remington, 1994).

Work by Stanley & Standon (2000), which attempted to apply this model to care staff supporting clients with challenging behaviour, found that the more the challenging behaviour appeared outward directed and under the control of the client the more the staff attributed intentionally and control to the client and the greater their negative emotional response and reduced motivation to help.

Researchers have also begun to examine the role of staff beliefs about their self-efficacy in relation to managing challenging behaviour. They argue that the strong emotional (and often negative) reactions to challenging behaviour, such as disgust and anger (Hastings, 1993) leads to avoidance behaviour in staff which can maintain it, despite staff knowledge about managing challenging behaviour. This would have practical implications in terms of staff training, suggesting that gains in staff knowledge may be insufficient to change practice if their attributions and emotional responses lead them to use avoidance strategies in response to challenging behaviour.

Attributional theory has, therefore, been used to help to explain why interventions for challenging behaviour may not always be successful. As a result it has been argued that attributional retraining offers one means of altering staff practice (Stanley & Standen, 2000). The assumption is that increasing staff awareness of the impact that their attributions about client behaviour have on their responses to such behaviour will allow

them to modify their practice. To date, however, there has only been a limited amount of work in this area. Berryman et al. (1994) examined staff attributions after two different types of training. The group attending a traditional behavioural management course was significantly more likely to identify reinforcement intrinsic to the behaviour as its cause. The group receiving training on non-aversive approaches was significantly more likely to identify the cause of behaviours in terms of reinforcement and escape/avoidance. However, this study had a number of limitations. The authors did not directly measure staff practice and relate this to either the form of training received or the attributions about the behaviour. In addition, the type of training provided to both groups was very similar in its basic content and it is unclear which components related to attributional change.

Another limitation is that, while all of the participants had already received training in traditional behavioural management techniques, an additional two days of training was provided each year. The authors do not record if the groups receiving the two different types of training also differed in the number of years they had worked with the organisation, and therefore the amount of previous training they had received. This factor alone may have influenced staff attributions. The group attending the 'traditional' workshop were more likely to rate the material as familiar and the workshop itself as less informative than the 'non-aversive' group. Work by Harper (1994), suggests that the perceived quality, relevance and applicability of training can effect its impact on the target group. It may be that the limited relevance of the 'traditional' training impacted on the outcome for the group trained in those methods. Finally, the study employed multiple comparisons and analyses of the data. The main difficulty with utilising multiple comparisons is that the possibility of making a Type I error increases i.e. rejecting the null hypothesis when it is in fact true. It may be that the results obtained in the study were influenced by this factor.

While staff attributions are potentially important factors, Cullen (2001) argues that, as yet, it remains an assumption that staff responses to behaviour are closely related to the attributions that they make about it. He cites the work of Stancliffe et al., (1999) who looked at predictors for staff interventions for challenging behaviour. The study found that behaviour that was externalised and had observable consequences for others e.g. aggression, destructive behaviour, was much more likely to be associated with a full range of interventions than internalised behaviour. Cullen (2001) argues that this suggests that it is the consequences of the behaviour for staff that influences their responses rather than necessarily their attributions per se.

1.1.5 The role of staff knowledge

The research outlined above indicates the potential role that staff attributions may play in shaping practice and service quality and identifies the ways in which training may need to take this into account. Another major factor which is assumed to be central to staff performance, and which the thesis will now focus on, is staff knowledge.

Following the implementation of community care policies, the two main professional groups involved in the care of people with a learning disability were health staff i.e. community learning disability services and general practitioners, and social care staff. The change in service provision has impacted on the knowledge base required by staff. Increasingly as individuals with more challenging behaviours and/or complex health needs are discharged from hospital, the demands on both health and care staff increase. Hill & Bruininks (1984) noted that over half of the clients supported by care staff in this study displayed challenging behaviour.

A number of studies have found high levels of staff burn-out and job turnover in community care staff working with individuals with learning disabilities (Sharrad 1992; Allan et al., 1990; Bromley & Emerson, 1995). One of the main factors repeatedly cited by staff is a lack of knowledge regarding the client group. Bromley & Emerson (1995)

found that a significant number of care staff responded to episodes of challenging behaviour by displaying reactions such as sadness, fear and disgust. One significant source of stress cited by staff in the study was difficulty in understanding the clients' behaviour.

In addition to having an adverse impact on staff morale, lack of knowledge about and experience of working with people with learning disabilities has also been found to impact on client behaviours (Bromley & Emerson, 1995). Hastings & Remington (1994) found that care staff often responded intermittently and in a reinforcing manner to clients' challenging behaviour. Similarly, Hastings (1996) found that immediate interventions employed by nursing staff were counter-habilitative but that staff did not feel that an understanding of the function of clients' challenging behaviour was a priority.

While a number of studies have focused on the impact of staff knowledge and experience on challenging behaviour, other researchers have highlighted the adverse impact that lack of staff knowledge can have on other areas relevant to individuals with a learning disability. These include sexuality (McCabe, 1993) sexual abuse (Stromsness, 1993), knowledge relating to mental health (Keshavan et al., 1991) and specific behavioural approaches (Morch & Eikeseth, 1992). In addition, a number of studies have examined the impact of knowledge about, and experience of, people with learning disabilities on attitudes towards them (Madhavam et al., 1990; Rees et al., 1991; Kobe & Mulick, 1995). In general, studies suggest that both close contact with individuals with a learning disability (Hames, 1996; Slevin, 1995) and the provision of specific training regarding learning disabilities (Henry et al., 1996) can result in more positive attitudes.

Knowledge about key aspects relevant to the care of individuals with a learning disability has been found to be limited in the general public, and in the two main groups involved in their care; health and social care staff. In addition to those areas noted above, a lack of knowledge has been shown to impact on staff anxiety, job turn-over and burn-out rates

(Sharrad, 1992; Allan & Pahl, 1990; Bromley & Emerson, 1995); the inappropriate management of challenging behaviour (Hastings et al, 1995); failure to adequately fulfil duty of care to clients (Lyall et al., 1995) and failure to deliver appropriate primary health care services (Howells, 1986; Kerr et al., 1996).

The knowledge and skill base of staff has been identified as central to good quality services for clients with a learning disability (Porterfield, 1987; Rose, 1995; Hastings, 1995). While staff are required to have a wide range of skills and broad knowledge base to adequately meet the different needs of clients, the thesis will focus on four main areas. Studies 1-4 below will examine knowledge levels of staff in four areas which are increasingly being seen as key in the provision of services to individuals with a learning disability: the definition of a learning disability; health needs of clients with a learning disability; definition and management of challenging behaviour and the application of the concepts of duty of care and facilitating client choice. The rationale for choosing each area will be outlined separately for each study. Study 5 will examine the role of training in changing the knowledge base of staff. The published studies resulting from the thesis are given in Appendix 5.

Chapter 2: Study 1

2.1 Introduction: Staff knowledge of the defining features of a learning disability

As was noted above, two main professional groups are currently employed to provide services to individuals with a learning disability: health and social care staff. However, these staff groups may differ in the type and amount of training that they have received. Health professionals working in the field of learning disabilities will have received a formal training in the application of their particular professional skills to this client group. By contrast, social care staff may not be required to undergo formal specialised training. While many may receive in-service training, some staff may be employed who have no previous experience or knowledge about working with people with a learning disability (Knapp et al., 1989; McVilly, 1997). This may result in differences in the knowledge base of staff and even in their understanding of what a learning disability is.

2.1.1 Defining a learning disability

"Persons professing skills in working with the handicapped should be aware of the characteristics and susceptibilities of the categories of handicap with which they work" (Ward, 1984, page 57).

Staff who are employed to support individuals with a learning disability have a legal and professional responsibility to be aware of the characteristics and needs of the client group (Ward, 1984). A number of changes in terminology may potentially make this more difficult. The terms 'idiot', 'imbecile' and 'subnormal' were all applied to the group of individuals who are now referred to as having a learning disability. What were once scientific terms (Hastings et al., 1993) are now perceived as derogatory and stigmatising labels. A number of additional changes in terminology have occurred more recently in an attempt to promote a less devaluing way of describing the needs of this group of people. In Great Britain the term 'mental handicap' was replaced in the late 1980s with the term 'learning disability', while in some countries the term 'mental retardation' continues to be

used. Other terms that are used to describe the same client group are 'intellectual disability' and 'learning difficulty'. While changes in terminology may have value because they are more acceptable to individuals with a learning disability and their families (Nurse et al., 1990) or may differ in the impact they have on others' expectations or self-concept (Hastings et al., 1993), the evidence suggests that all of the labels are associated with very similar negative connotations (Hastings et al., 1993).

In addition to changes in the terminology there is also confusion regarding the condition itself, not least because the one term is used to describe a group of individuals whose disabilities may vary widely, as will their associated support needs (Gates, 1997).

Similarly, the definition which any given service uses may vary from an administrative definition, which determines eligibility for services on the basis of previous input from learning disability services, (Burton, 1997) a legislative definition or prospective definition which attempts to predict the need for future learning disability services in a given individual (NWRHA, 1990). There are a number of terms employed for legal purposes in respect of people with a learning disability. These may include 'mental incapacity' or 'mental impairment' which are applied within the Mental Health Act (1983).

Psychologists have also approached the issue of learning disabilities from the context of a social model, with an emphasis on the interaction of the individual with the social world (Clegg, 1993) and from the viewpoint of neuropsychology, with an emphasis on the cognitive deficits and neuroanatomical abnormalities which may be common to individuals with a learning disability (Pulsifer, 1996). The reaction against medically-orientated institutional care has also been paralleled by an increasing focus on the handicapping effect model (World Health Organisation, 1980), whereby the organic deficits of an individual with a learning disability (the impairment) results in functional deficits, either behavioural or cognitive (the disability). A person who is identified as

disabled is further disadvantaged by negative social attitudes towards the disability (the handicap).

The defining criteria for learning disability have, therefore, changed to some extent over the past four decades, but throughout this time have always included impairments in both cognitive and adaptive functioning (Pulsifer, 1996). Learning disability is currently defined by three main criteria:

- Significantly sub-average intellectual functioning, with an IQ of approximately 70 or less.
- Concurrent deficits or impairments in present adaptive functioning in at least 2 of the following: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health and safety.
- Onset before adulthood

(DSM IV, American Psychiatric Association, 1995; AAMR, 1992; BPS, 1991)

This definition carries with it four assumptions as follows:

1. That the assessment of both intellectual and social functioning is valid i.e. it accounts for factors such as cultural and linguistic diversity.
2. That deficits in adaptive skills functioning are assessed as occurring within the context of community environments which are typical of those experienced by the individuals' peers.
3. That the individual may have personal strengths and capabilities which co-exist with the limitations associated with the learning disability.
4. That the individual requires the appropriate life supports over a sustained period to ensure that their level of functioning is maintained (AAMR, 1992).

The recent Scottish Executive document 'The Same as You: A review of services for people with learning disabilities' (2000) also incorporates these three criteria in its

definition of a learning disability, albeit loosely. Using the above criteria, it is estimated that there are approximately 20 people per 1000 in Britain who have a learning disability, while 3-4 per 1000 have severe or profound learning disabilities (Sperlinger, 1997).

2.1.2 Knowledge of learning disability

While, as noted above, knowledge about a number of specific aspects relating to lives of people with learning disabilities have been examined, there are few studies focusing on knowledge of what a learning disability is. A lack of knowledge has been found to relate to people holding misconceptions about people with learning disabilities. Student general nurses were found to express confusion between people with a learning disability and people with mental illness (Barr, 1990) and also saw people with learning disabilities as entirely different from themselves and as exhibiting bizarre behaviour (Slevin & Sines, 1996). Research also suggests that misconceptions relating to people with a learning disability are common among the general population (Antonak et al., 1989).

One study by Aminidav & Weller (1995) explicitly addressed the understanding of what a learning disability was in members of the general public. They posed the question "What is Mental Retardation?". They found that individuals who were of Western origin had more accurate and greater breadth of knowledge about people with learning disabilities than individuals of Iraqi or Yemenite origin. In addition, middle class respondents had greater knowledge than did lower class respondents.

Despite the extensive findings that levels of staff knowledge and experience effect morale, attitudes and job turnover, as well as impacting on staff behaviour, and that direct care staff may lack the knowledge and understanding to successfully deal with more complex needs (Hastings, 1986), an examination of the level of knowledge of what defines a learning disability amongst staff working directly with this group does not appear to have been made. It would be assumed that an understanding of what a learning disability is, and the impact of having a learning disability on the individual would be a

pre-requisite to enable staff to deal effectively and appropriately with the needs of the individuals that they support. Some of the main issues that staff need to be aware of include: the balance that staff must strike between facilitating client choice and executing their duty of care; implementing effective and non-aversive approaches to challenging behaviour and an awareness of the increased and often unmet health needs of individuals with a learning disability. These areas are addressed in studies 2-4 below.

2.1.3 Aims of Study 1

Study 1 aimed to examine the level of knowledge of the accepted criteria for learning disability in four groups: health care staff, residential staff, day care staff, and General Practitioners, using DSM IV Criteria as a comparator. It was hypothesised that the health care staff would have significantly greater levels of knowledge of the criteria for learning disability than the remaining three groups.

2.2 Method: Study 1

2.2.1 Assessing staff knowledge of a learning disability.

Participants

Study 1 examined the level of knowledge of the accepted criteria for learning disability in four groups using DSM IV Criteria as a comparator. These groups were health staff (n = 47), residential staff (n = 50), day care staff (n = 39) and General Practitioners (n = 27). This gave a total sample size of 163.

Health staff included staff from the following services: two community learning disability teams (with a composition of nursing, clinical psychology, psychiatry, speech and language therapy, physiotherapy, occupational therapy and dietetics); specialist challenging behaviour in-patient unit; health service nursing home provision. Residential staff were from social work funded non-statutory housing agencies who provided day-to-day support for people with a learning disability in small group homes and supported tenancies. Day-care staff were from social work funded Adult Resource

Centres and they provided daily occupational and leisure activities for individuals with a learning disability. All participants cared for or supported individuals with learning disability as their main or only job, with the exception of the General Practitioners who would have contact with learning disabled individuals only as a part of their routine practice.

Measure

Participants were asked to provide the following information:

- How long have you worked with people with a learning disability?
- Job Title:
- What is your understanding of the term "Learning Disability"?

General Practitioners were also asked a series of additional questions outlined in study 2 below.

Procedure

All staff who participated in the study were assured that participation was voluntary, that all responses were anonymous and confidential and that they formed part of a research project. A random sample of staff (with the exception of GPs, who were all invited to participate) from the four professional groups from the Lothian & Borders areas of Scotland were approached and the nature of the study explained. The samples were randomised by asking every alternate staff member that the author came in contact with to participate in the study. General Practitioners were contacted by means of existing practice lists of names and addresses. A questionnaire was sent out to sixty-two GPs with a covering letter explaining the purpose of the study and a stamped addressed envelope in which the questionnaire could be returned. The GPs were asked to return the questionnaire within one month. All staff who were approached agreed to participate, with the exception of the GP sample, of whom 27 out of 62 returned the questionnaire within the one month deadline, giving a response rate of 44%.

Responses to the questionnaire were either recorded verbatim by the researchers or the participants wrote their responses in the presence of the researchers, with the exception of the GPs who returned the questionnaires by post. Participants were given the option of which response method they preferred for two reasons: to avoid embarrassment for those individuals who had difficulty with reading or writing, and to allow for the fact that the articulation of people can be effected by whether they give written or spoken responses (McColl et al., 1993).

The responses were analysed using the DSM IV (American Psychiatric Association, 1995) criteria for a learning disability, i.e.

- Significantly sub-average intellectual functioning, with an I.Q. of approximately 70 or below on an individually administered I.Q. test;
- Concurrent deficits or impairments in present adaptive functioning in at least two of the following areas: communication, self-care, home living, social/inter-personal skills, use of community resources, self-direction, functional academic skills, work, leisure, health & safety;
- Onset before 18 years.

Responses were scored in terms of the above three criteria needed to reach a diagnosis of a learning disability. In addition, every second response was chosen randomly from each staff group until $n = 72$, 44% of the total sample, and was scored by two independent raters to examine inter-rater reliability. The coding system was as follows:- answers were given three points if they contained all three criteria, two points if only two criteria were mentioned, and so on giving a maximum score of 3 and a minimum of zero. The criteria were such that a point was allocated if the respondent explicitly or implicitly referred to the criteria. Table 1 below gives example of accepted responses for each criteria.

Table 1: Examples of accepted responses for each criteria of a learning disability

Criteria	Example
Intellectual impairment	Slower to learn. People with low IQ. Disability of the learning process
Impairment of adaptive behaviour skills	Unable to grasp everyday self-care tasks Needs support to live independently. Impairment in adaptive skills.
Childhood onset	Injury to the brain during the developing years. Onset before adulthood. Slow at school.

The results were also examined in relation to employment group and number of years of experience of working with people with a learning disability.

Statistical analysis

It has been argued that, because of the robustness of parametric statistics in cases where data is normally distributed (Cramer, 1998), and even when their assumptions are violated (Howell, 1997), ordinal scales may acceptably be treated as providing interval data. As a result, the following study employs some parametric statistics. In all cases where parametric statistics were used the Kolmogorov-Smirnov Z test was used to ensure that the data distribution did not differ significantly from the normal distribution curve.

2.3 Results: Study 1

2.3.1 Study 1: Knowledge of a learning disability

Inter-Rater Reliability:

Forty four % of responses ($n = 72$) were analysed by two raters to determine inter-rater reliability. There was significant agreement between raters for I.Q. criteria ($K = 0.94$, $p < 0.01$), adaptive skills criteria ($K = 0.91$, $p < 0.01$) and childhood onset criteria ($K = 0.78$, $p < 0.01$).

Differences Between Geographical Areas

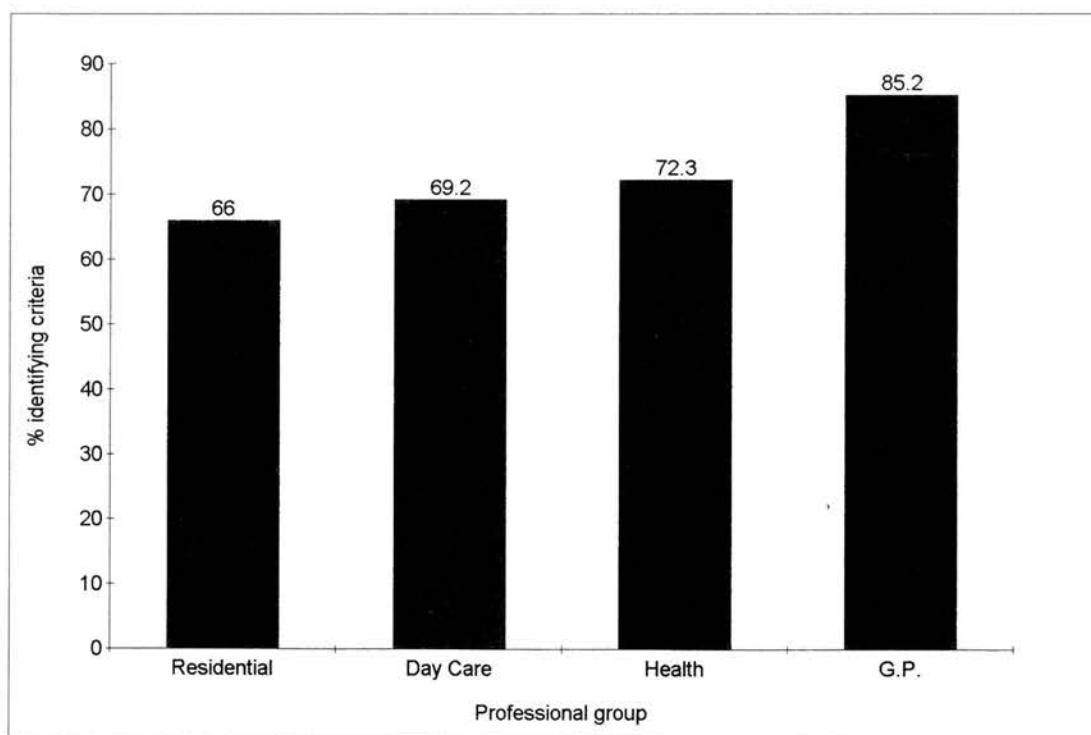
No significant differences on knowledge scores relating to I.Q., adaptive skills, childhood onset, or overall scores were found in relation to geographical area.

Knowledge of Criteria by Professional Group

Intellectual Impairment

Figure 1 below illustrates the percentage of subjects in each group who correctly identified intellectual impairment as one of the criteria for a learning disability. As can be seen General Practitioners did best overall with 85.2% correctly identifying this criteria. There were no significant differences between the groups on this criteria.

Figure 1: Percentage of participants in each professional group aware of intellectual impairment as a criteria of learning disability

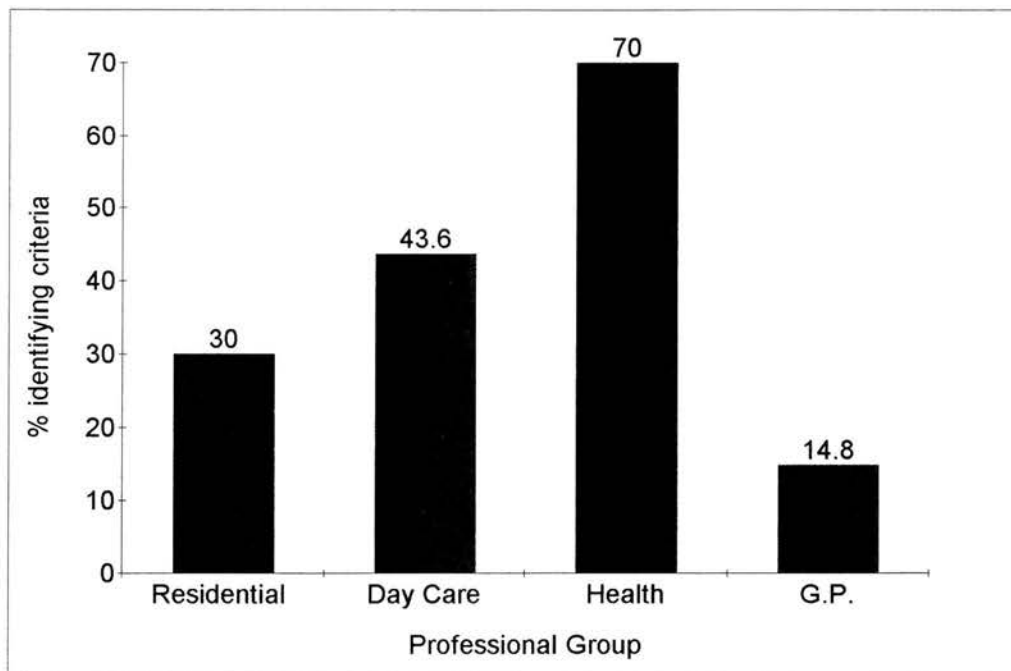


Adaptive Behaviour Skills

Figure 2 below illustrates the percentage of participants in each group who correctly identified impaired adaptive behaviour skills as a criteria for a learning disability. A

significant association between the responses to the adaptive skills criteria and professional group was found ($X^2 = 26.48$, $df = 3$; $p < 0.01$). A series of Chi-square tests illustrated that the health care staff were significantly more likely to identify the adaptive skills criteria than the day care staff ($X^2 = 6.26$, $df = 1$, $p < 0.05$), the residential staff ($X^2 = 15.64$, $df = 1$, $p < 0.001$) and the GPs ($X^2 = 21.05$, $df = 1$, $p < 0.001$). In addition, the day care staff were significantly more likely to identify this criteria than the GPs ($X^2 = 6.03$, $df = 1$, $p < 0.05$).

Figure 2 : Percentage of participants in each professional group aware of adaptive skills deficit as a criteria of learning disability

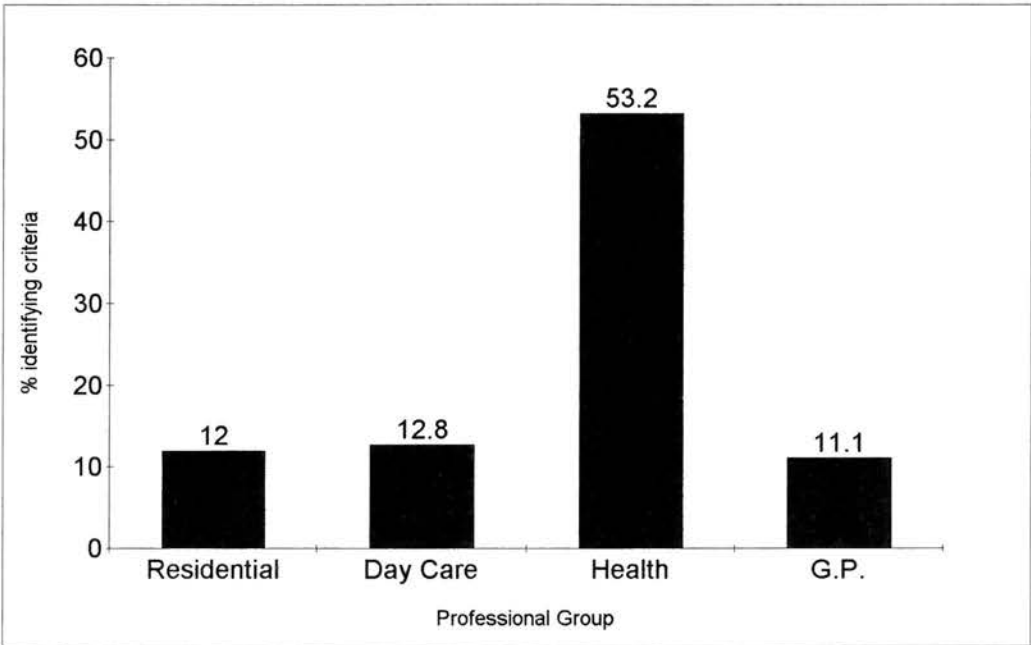


Childhood Onset:

Figure 3 below illustrates the percentage of participants in each group correctly identifying childhood onset as a criterion for a learning disability. Again a significant association was found between responses and professional group ($X^2 = 31.1$, $df = 3$; $p < 0.01$). A series of Chi-square tests illustrated that the health staff were significantly more likely to identify the childhood onset criteria than the GPs ($X^2 = 12.86$, $df = 1$, $p <$

0.001), the residential staff ($X^2 = 18.87$, $df = 1$, $p < 0.001$) and the day care staff ($X^2 = 15.2$, $df = 1$, $p < 0.001$).

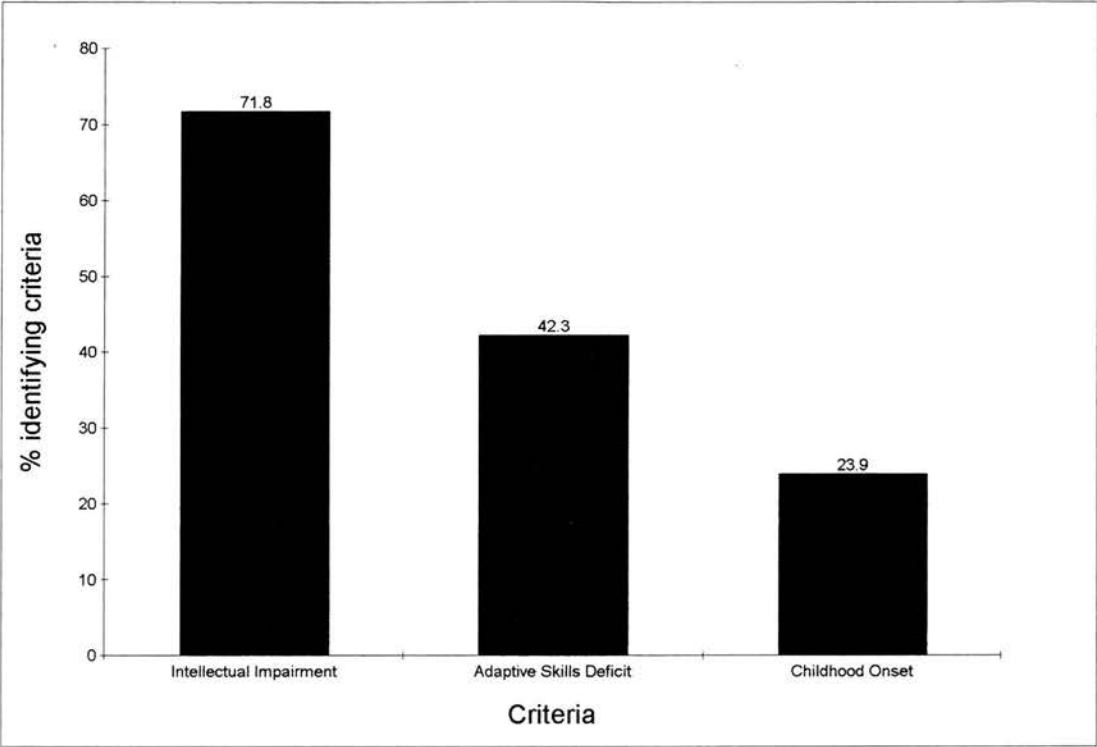
Figure 3: Percentage of participants in each professional group aware of childhood onset as a criteria of learning disability



Knowledge of Criteria - All Participants:

Figure 4 illustrates the percentage of all participants in each group correctly identifying the three criteria for a learning disability. A Cochranes Q test demonstrated that the frequency of correct responses differed significantly across the three criteria ($Q = 76.76$, $df = 2$, $p < 0.01$). Participants were significantly more likely to identify intellectual impairment than either the adaptive skills criteria ($X^2 = 23.5$, $df = 1$, $p < 0.01$) or childhood onset criteria ($X^2 = 64.45$, $df = 1$, $p < 0.01$). Similarly, participants were more likely to identify the adaptive behaviour skills deficit as a criteria than childhood onset ($X^2 = 15.02$, $df = 1$, $p < 0.01$). Thus while 71.8% of participants could identify intellectual impairment as a criterion, only 42.3% could identify adaptive behaviour skills deficits and only 23.9% childhood onset as such.

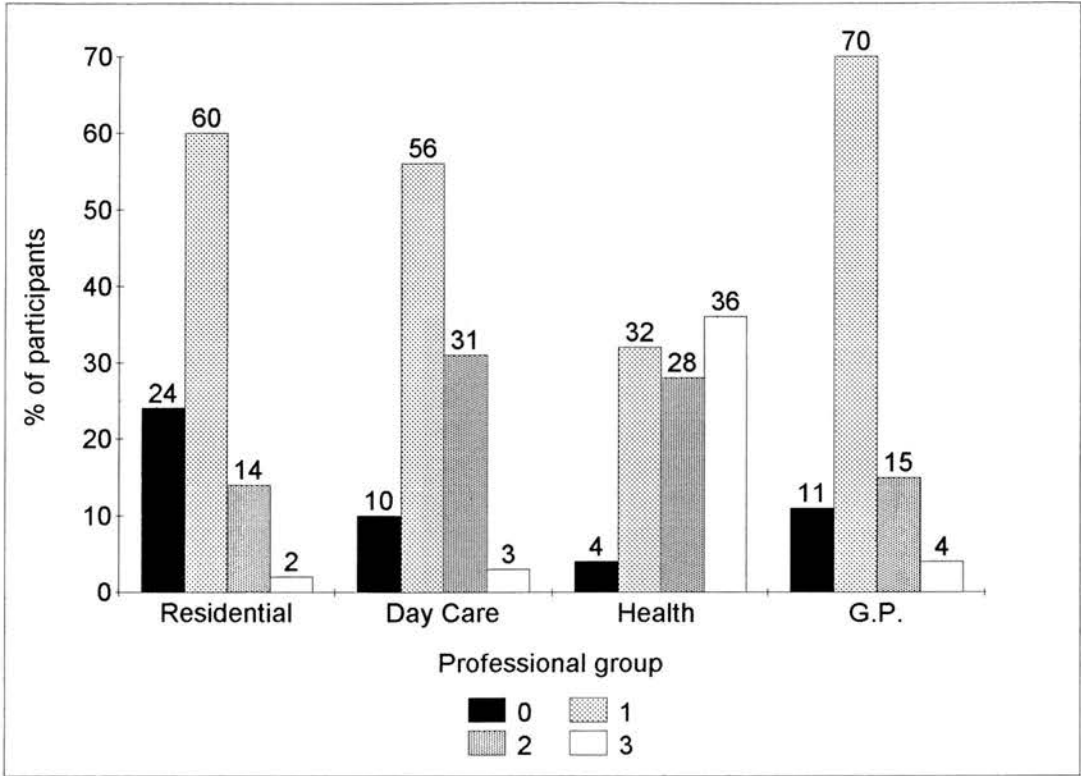
Figure 4: Percentage of all participants aware of each of the criteria of a learning disability.



Overall Scores by Professional Group

Figure 5 illustrates the percentage of participants in each professional group who were aware of three, two, one or none of the criteria of a learning disability. A significant difference between the groups in terms of knowledge scores was found ($F = 16.11$, $df = 3$; 159, $p < 0.01$) with the health group scoring significantly higher ($m = 1.96$, $sd = 0.93$) and the residential group scoring lowest ($m = 0.94$, $sd = 0.68$). With the exception of the health group, knowledge of the three criteria of a learning disability was poor with only 2 to 4% of the respondents in the remaining professional groups being aware of the three criteria.

Figure 5: Percentage of participants in each professional group aware of none, one, two or three of the criteria of a learning disability



Experience of Working with Individuals with a Learning Disability and Knowledge:

The data from the General Practitioners Group was excluded from this analysis as GPs do not work exclusively with individuals with a learning disability. A significant correlation was found between experience of working with learning disabled individuals and knowledge of criteria for a learning disability ($r = 0.24, p < 0.01$), with the greater the individual's experience the higher the overall knowledge of the criteria of a learning disability.

2.4 Discussion: Study 1

2.4.1 Study 1: Knowledge of a learning disability

Study 1 examined the knowledge of health care staff, General Practitioners, day care staff and social care staff about the defining features of a learning disability. The most obvious aspect of study 1 is that the overall level of knowledge is not high in any of the groups studied. The health group had a significantly higher overall knowledge score than the

other professional groups studied, indicating greater knowledge. This might be expected as the work of health staff is largely of a more specialist nature, for example, working with individuals with challenging behaviour or multiple disabilities. This work may involve more emphasis on detailed assessment and treatment approaches designed to help minimise the consequences of intellectual and adaptive behaviour skills deficits. It is therefore likely that the criteria for a learning disability would be more salient for this professional group. However even amongst this group only 36% were aware of all three criteria and 4.3% were not aware of any. This was despite the scoring criteria erring on the side of allowing any answer which explicitly or implicitly referred to the criteria. The findings of the present study are in keeping with previous results which have found knowledge of relevant aspects of learning disabilities to be low in staff concerned with their care. (Allan et al., 1990; Sharrad, 1992).

While previous studies have examined knowledge which needs to be applied in the care of learning disabled people, for example, behavioural principles (Hastings, 1996) and knowledge of a carers' duty of care (Brown et al., 1994) the present study looked at issues which are defining of, and fundamental to having a learning disability. It may be that the application of more specific therapeutic approaches or care packages is difficult if staff do not have a basic understanding of what constitutes a learning disability.

Assessment of the criteria which determines the diagnosis of a learning disability has traditionally been the remit of psychologists (Burton, 1997). It is therefore possible that other professional groups involved in the care of learning disabled people do not have the same overview of what constitutes a learning disability. The psychology profession may therefore have a responsibility for educating other staff groups about the fundamental issues relating to this area of learning disabilities. In addition, the application of the philosophy of normalisation (Wolfensberger, 1983), changes in terminology in an attempt to reduce stigmatisation (Gates, 1997) and the proposal of models which focus on more social than individualistic models of learning disability (Clegg, 1993), may all

have contributed to professional groups being less aware of the defining features of a learning disability.

Overall, respondents were significantly more likely to identify the criteria of intellectual impairment and adaptive behaviour skill deficits, than childhood onset criteria. The former aspects of a learning disability are of more practical relevance to staff than the fact that the condition must occur prior to adulthood. In addition, many current therapeutic approaches employed with learning disabled individuals are essentially ahistorical, tending to be of the "here and now" variety involving behavioural techniques (La Vigna & Donnellan, 1986) or reflecting the relationship between the client and therapist (e.g. McGee et al., 1987). The salience of particular criteria of a learning disability may, therefore, largely be effected by the philosophy of the service and the nature of the interventions which staff use. Knowledge of the childhood onset criteria may be of most benefit in terms of determining the most appropriate service for clients. Thus, clients who had impaired intellectual and adaptive skills due to dementia or mental illness would be identified by the childhood onset criteria as not having a learning disability, and would be referred on to the appropriate service to meet their needs i.e. elderly and psychiatric services respectively.

In terms of experience, it was found that the more months of experience of working with clients with a learning disability that individuals had, the greater their knowledge of the criteria of learning disability. Increased contact with learning disabled people has been found in previous studies to relate to increased knowledge of specific interventions (Bromley & Emerson, 1995), to more positive attitudes (Hames, 1996) and less segregated practices (Slevin & Sines, 1996). The exact relationship between experience and knowledge is unclear. Are those who have more experience more likely to develop increased knowledge through their day-to-day contact or because they have had more training and education? Further clarification of this relationship is necessary to ensure that attempts to increase the knowledge of professional groups are targeted correctly.

In terms of methodological limitations, it may be argued that the results of study 1 may be specific to the geographical area or individuals studied. Study 1 did, however, cover three large geographical areas with data from 6 day service providers, 7 residential facilities, 14 general practices and 3 community learning disability teams. In addition, no significant differences were found on any of the criteria scores for the three separate geographical areas in question. Overall, the findings of study 1 generally concur with those of previous researchers. In respect of specificity of responses, a number of GPs did not return their questionnaires. It is plausible that the reason may have been an awareness of their lack of knowledge. It is unlikely that all of the respondents had markedly less knowledge than those who did not participate although this possibility can not be completely ruled out. The methodological limitations of using questionnaires are given in more detail in chapter six.

In summary, study 1 examined the level of knowledge of the criteria for a learning disability among four professional groups involved in the care of learning disabled people. The health professionals were found to have a significantly greater knowledge of the criteria, however overall knowledge of the criteria was low in all groups. A significant relationship between length of experience of working with individuals with a learning disability and knowledge was found. Those with more months of experience of working in learning disability services were found to have greater knowledge of the criteria for a learning disability.

Chapter three: Study 2

3.1 Introduction: Study 2

3.1.1 Health care needs and staff knowledge

As was noted above, in the past 20 years services for individuals with a learning disability have gradually altered. From being hospital based with a medical remit, services have developed into a range of community based provisions to meet the needs of this client group. A number of reports over the years have identified primary health care teams as the professional group responsible for meeting the health needs of individuals with a learning disability (Jay Report, 1979; Caring for People, 1989). This culminated in the publication of the Health of the Nation Strategy for People with Learning Disabilities (Department of Health, 1995), which emphasised the need for health promotion, surveillance and care among this population.

However, this emphasis has not been accepted wholeheartedly by primary health care professionals (Kerr et al., 1996; Lennox et al., 1997), or by carers of individuals with a learning disability (Rodgers, 1993). A number of barriers to receiving good health care have been identified for individuals with a learning disability. Lawrie (1995) highlights difficulties for people with a learning disability in communicating their symptoms, or accessing health education materials suitable for their needs (Kelly & Gottesman, 1997). A recent study of the satisfaction of learning disabled people with the health care they had received found high levels of dissatisfaction, with particular emphasis on professionals' failure to provide adequate explanations (Mental Health Foundation, 1996). A further barrier is that GPs are sometimes unclear about their exact remit when it comes to providing services to people with a learning disability. Kerr et al. (1996) found that while the GPs surveyed viewed themselves as responsible for the general medical care of individuals with a learning disability, they were generally opposed to the idea of providing regular structured health checks and health promotion.

This confusion is of particular concern, as it is increasingly being recognised that there continues to exist large areas of unmet health care needs in people with a learning disability (Howells, 1986; Wilson & Haire, 1990; Martin et al., 1997) and also that people with a learning disability experience a greater number of health problems than the general population (Department of Health, 1995; Thornton, 1997; Martin, 1997).

A number of health initiatives have been proposed in an attempt to improve health care for learning disabled individuals, with the emphasis being on closer liaison between primary health care teams and specialist learning disability services (Martin, 1997), improved professional training (Turner & Moss, 1996) and education (Thornton, 1997). In addition, there has been an emphasis on the need to establish a register of the medical needs of individuals with a learning disability (Royal College of General Practitioners, 1990). A significant barrier to the provision of the targeted health care and education was found to be the inability of GPs to identify the individuals on their caseloads with a learning disability (Howells, 1986). Such initiatives, however, rely largely on primary health care teams being aware of the specific health needs of individuals with a learning disability and expressing interest in closer links with specialist services (Kerr et al., 1996; Lennox et al., 1997).

In relation to GPs, Rodgers (1993) found that carers felt their GP did not understand the complex issues associated with having a family member with a learning disability. General practitioners themselves also appear uncertain both about the specific health needs of this population and the range of services they should provide (Kerr et al., 1996). In summary, research would suggest that some general practitioners, along with other professionals involved in the care of individuals with a learning disability, lack some of the knowledge required to provide a good quality service to this client group.

3.1.2 Aims of study 2

Study 2 aims to do the following:

1. To examine GPs' understanding of the term learning disability as compared with recognised diagnostic criteria (DSM IV, 1995).
2. To examine the extent to which GPs regard the diagnosis and provision of health care services for people with a learning disability as being their own as opposed to the remit of specialist services.
3. To establish the number of GPs who are able to identify individuals with a learning disability on their caseload.
4. To ascertain what GPs themselves consider to be the main health care needs of people with a learning disability.
5. To examine the relationship between levels of GPs' understanding of the term learning disability as measured against diagnostic criteria (DSM IV, 1995) and their confidence in providing for the health care needs of this group.

3.2 Method

3.2.1 Study 2: Assessing GP Knowledge of a learning disability and the relationship with practice

Measure

A questionnaire was designed to survey general practitioners' opinions about issues relating to the provision of learning disability services (see Appendix 1), the design of which was based upon previous research findings which highlighted the following issues:

- a. The limited awareness of some GPs of the health care needs of people with a learning disability.
- b. The difficulty GPs face in quickly and easily identifying the number of individuals with a learning disability on their caseload.
- c. The ongoing debate about the appropriateness of the health care needs of people with a learning disability being met by primary health care as opposed to specialist teams.

d. Misconceptions about the actual health care needs of people with a learning disability.

Piloting the questionnaire

The questionnaire was piloted on 85 GPs in the Borders region of Scotland. They were sent the questionnaire by post and asked to complete it adding any additional comments they wished. The questionnaire was identical to that used in study 2, with the exception of the question 'What is your understanding of the term learning disability?'. Fifty five questionnaires were returned from the pilot group (65% response rate). All of the GPs had correctly completed the questionnaire, indicating that it had some face validity and relevance for them. No comments were made in relation to the structure of the questionnaire, but one GP commented that he would only have had difficulty identifying and diagnosing people with a mild learning disability. Following the pilot, one question was added to the questionnaire: 'What is your understanding of the term learning disability?' to enable a comparison with other groups who supported people with a learning disability as is outlined in Study 1.

Procedure

For study 2, sixty two questionnaires were sent out to all the GPs in a largely rural area of Scotland, as outlined above for study 1. None were sent to the GPs who had already participated in the pilot. Thirty-four questionnaires were returned, giving a response rate of 55%. In addition to the 27 questionnaires included in study 1, an additional 6 questionnaires were returned after the one month deadline. These were not included in study 1 as the analysis had already been completed, but were included in the study 2 analysis, giving a total of 34. GP responses in relation to the criteria defining a learning disability were analysed using DSM IV criteria (American Psychiatric Association, 1995) as outlined above. As with study 1, in all cases where parametric statistics were used it was ensured that the data distribution did not differ significantly from the normal distribution curve.

3.3. Results of Study 2

3.3.1 Study 2: Knowledge of General Practitioners and the relationship with practice

Knowledge of a learning disability

Table 2 below illustrates the number of GPs correctly identifying each of the three criteria for a learning disability.

Table 2: Number and percentage of GPs identifying each of the criteria of a learning disability.

	Impaired Intelligence	Adaptive Functioning	Childhood Onset
Number of GPs	30	7	3
Percentage of GPs	88.2	20.6	8.8

As can be seen, 88.2% of GPs correctly identified intellectual impairment as a criteria of learning disability, while only 20.6% mentioned impaired adaptive functioning and only 8.8% identified onset before adulthood. A chi-square goodness-of-fit test demonstrated that a significant number of GPs did not identify impaired adaptive functioning ($X^2 = 11.8$, $df = 1$, $p < 0.01$), or onset before adulthood ($X^2 = 23$, $df = 1$, $p < 0.01$).

Table 3 illustrates the number of GPs identifying none, one, two or three of the criteria for a learning disability.

Table 3: Number and percentage of GPs identifying none, one, two or three of the criteria for a learning disability.

	None	One	Two	Three
Number of GPs	3	23	7	1
Percentage of GPs	8.8	67.6	20.6	2.9

As table 3 illustrates, only one GP identified all three criteria for a learning disability and 67.6% identified only one.

Identifying people with a learning disability on GPs caseloads

A significant number (n = 29, 85.3%) of GPs felt unable to identify clients with a learning disability on their caseload ($X^2=16.94$, $df = 1$, $p < 0.01$).

Diagnosing a learning disability

A significant number (n = 30, 88.2%) of GPs felt unable to diagnose whether an individual on their caseload had a learning disability ($X^2 =19.9$, $df = 1$, $p< 0.01$), with this percentage feeling this was a role for a specialist. It was, however, found that there was no significant relationship between the extent to which a GP felt able to diagnose a learning disability themselves and their actual knowledge of this criteria.

Meeting the health care needs of individuals with learning disabilities

Table 4 illustrates the extent to which general practitioners felt that the health care needs of people with a learning disability should be met by a specialist team, as opposed to by themselves.

Table 4: The extent to which GPs felt that health care needs of people with a learning disability should be met by a specialist team, as opposed to by themselves.										
	POSITION ON CONTINUUM									
	Needs met by GP					Needs met by Specialist Team				
	1	2	3	4	5	6	7	8	9	10
Number	0	0	1	0	6	3	5	7	10	2
Percentage	0	0	2.9	0	17.6	8.8	14.7	20.6	26.5	5.9

The modal score was found to be 9, with the range tending to be from 6-10, indicating that the GPs surveyed felt that meeting the health care needs of individuals with a learning disability was more a specialist function.

Health Care Needs

The health care needs of individuals with a learning disability most commonly cited by GPs are shown in Table 5 below.

Table 5: Number of GPs and percentage of responses identifying the most commonly cited health care needs of people with a learning disability

Factor	Number of GPs	Percentage of responses
Need for specialist health services	17	24
Access/recognition of specific health needs	17	24
Social care issues	15	21
Don't know	4	6
No different to general population	4	6
Epilepsy	4	6
Safety issues	3	4
Physical/mobility issues	3	4
Infection	3	4
Sexual health	1	1
Total	71	100

(It should be noted that some GPs identified more than one health care need)

3.4 Discussion: Study 2

3.4.1 Study 2: GP Knowledge and implications for practice

Study 2 examined GP knowledge about people with a learning disability and their associated health needs, and the relationship of this with GP opinion about the provision of primary health care to individuals with a learning disability. In relation to knowledge, a significant number of GP's in the current study were aware that intellectual impairment is a criterion of learning disability with over 88% identifying this factor. They did

significantly worse in relation to the remaining criteria with only 20.6% identifying deficits in adaptive behaviour skills and 8.8% naming childhood onset. In addition, only one GP identified all three criteria for a learning disability and three respondents did not identify any.

As noted above, assessment of the criteria which determines the diagnosis of learning disability, in particular intellectual functioning, has traditionally been the remit of psychologists (Burton, 1997). It may be that while GP's have made referrals to psychologists for this part of the assessment, they are less aware of the other aspects of a learning disability. Psychologists may, therefore, have a role in educating GP's about the overall criteria for a learning disability.

Somewhat surprisingly, there was no significant relationship found between GP's actual knowledge of the diagnostic criteria for a learning disability and their confidence in diagnosing it themselves. This may reflect a correct assumption that a diagnosis of a learning disability is generally considered to be a specialist assessment (Burton, 1997). However, given that the GP may be the professional whom the individual with a learning disability has initial and most frequent contact with (Lennox et al., 1997), a working knowledge of the criteria for diagnosing a learning disability would be required to ensure that the individual had access to any specialist services, support or assessment subsequently required. In tandem with lack of confidence in diagnosing a learning disability, a significant proportion (85%) of GP's felt unable to identify the individuals on their caseload with a learning disability. This means targeted health promotion, education or screening for this population would be difficult, if not impossible to provide. This finding is common (Kerr et al., 1996; Lennox et al., 1997), despite a number of researchers recommending adoption of a register of the medical needs of people with a learning disability (Howells, 1986; Royal College of General Practitioners, 1990).

All of the above findings suggest significant barriers to individuals with a learning disability receiving appropriate health care. The responses of the GP's in this study generally indicated that the health care needs of this population should be met more by a specialist team, as opposed to themselves. This is in contrast to a number of reports which identify primary health care teams as the responsible professional group for meeting these needs (Jay Report, 1979; Cumberledge Report, 1986; Caring for People, 1989). The role of specialist teams in the provision of health care has, however, been seen as central in many previous studies which have assessed GP opinion (Kerr et al., 1996; Martin, 1997). There would therefore appear to be some conflict between health care policy and recommendations and general practitioners' confidence in adopting such roles.

A number of previous studies of both general nursing staff and GP's (Martin, 1997) have indicated that confusion about the abilities, needs and nature of individuals with a learning disability was linked with support of segregative health care practices (Slevin & Sines, 1996; Murray & Chalmers, 1991). A similar process may be occurring with GP's, with limited training in respect of health care needs of people with learning disabilities, leading to the view that such needs can only be met by specialist services. It may also be argued that an unfair expectation has been made of general practitioners to carry the medical responsibility for this client group. Given the complex and multiple health needs of some individuals with a learning disability (Langan, 1994; Rodgers, 1993), and the under-resourcing in some areas of specialist community services, GP's may be unable to meet these expectations. This is perhaps also reflected in general practitioners' identified health care needs for this population. Most commonly cited health care needs related to the recognition of the need for specialist services (24%) in relation to difficulties such as challenging behaviour, mental health problems, or the need for occupational therapy. Similarly, a further common response indicated a recognition of the specific health care needs of the population and that managing and monitoring health, as well as access to health services, may be different to that of the general population.

The third most commonly cited factor was social care issues e.g. need for appropriate housing, day care, indicating the overlap between community care and health care policies. This highlights the need for adequate multi-disciplinary care packages to be developed for individuals with a learning disability living in the community. In addition, the specialist learning disability teams and social services have a responsibility to inform general practitioners about the support and services they offer.

Twelve per cent of general practitioners were either unaware of any particular health needs of individuals with a learning disability, or felt that these needs were no different to those of the general population. This is somewhat concerning given the increasing acknowledgement that people with all levels of learning disabilities have specific and additional health needs as compared with the general population (Langan, 1994; Rodgers, 1993).

The present study does however have a number of limitations. The response rate of 55% is higher than that typically found in postal surveys (Babbie, 1979). However this also indicates that a high percentage of GP's did not actually respond. It is possible that this group may have had opinions which differed from those of the respondents.

However, a number of the findings are consistent with previous studies (Kerr et al., 1996; Thornton, 1996), indicating that the views and knowledge of the respondents in the present study are representative of this group. As with study 1, the methodological limitations of utilising questionnaires are given in chapter 6 of the thesis.

In summary, study 2 highlights the uncertainty felt by a group of general practitioners about diagnosing, identifying and providing for the health care needs of individuals with a learning disability. The most frequently cited health care needs were: access to specialist services, the recognition of specific health care needs of the learning disability

population, and issues of social care. Results suggest the need for specialist learning disability services to have closer links to, and a more educational role with GP's.

Chapter four : Study 3

4.1. Introduction: Study 3

4.1.1 Staff knowledge and the management of challenging behaviour

The phrase "Challenging Behaviour" has become part of the everyday language in the field of learning disability (Thurman, 1997). The term originally arose to emphasise that the challenge was for services to meet the needs of individuals with a learning disability, rather than the difficulties purely residing in the individual him/herself. This was articulated by Emerson et al. (1988) who defined severely challenging behaviour as "behaviour of such an intensity, frequency or duration, that the physical safety of the person or others is placed in serious jeopardy, or behaviour which is likely to seriously limit or deny access to, and use of ordinary community facilities." (Emerson, 1988, p 16).

However, Wing (1996) notes that the term "challenging behaviour" can often be misinterpreted or misapplied, being seen as referring to behaviour that is deliberately awkward and defiant. Cheseldine and Stansfield (1993) note that the term is used interchangeably with "problem behaviour" resulting in labels which individuals find difficult to shake off. This may also result in challenging behaviour being identified according to its behavioural topography (Hastings et al., 1997). This topography may include self injury, aggression and stereotypy. These difficulties may reflect a lack of clarity on the subject with an on-going debate about the terminology taking place (Thurman, 1997). Despite these concerns the term 'challenging behaviour' does implicitly acknowledge that the behaviour has a function for the individual in expressing an unmet need.

Research has indicated that between 10-15% of individuals with a learning disability display challenging behaviour (Kiernan & Qureshi, 1993), with a recent study by Emerson et al. (2000) finding that over 50% of the clients involved in the study had

displayed a 'moderately serious' or 'severe' behaviour in the previous month. One of the most common forms of challenging behaviour is aggression (Harris, 1993).

The expression of challenging behaviour is related to a number of negative factors for both the clients and those who support them. Apart from those outcomes which are defining of challenging behaviour e.g. harm to self and others, limited access to community facilities, there are a number of additional negative outcomes. A recent study by Emerson et al. (2000) quote the following 'These include: physical injury to the person, other people with intellectual disabilities and care staff; social exclusion, isolation and neglect; abuse from caregivers; exposure to restrictive treatment and management practices; increased stress and strain among caregivers and increased cost of service provision.' (Emerson et al., 2000, p197).

In addition, Emerson et al. (2000) found that, despite evidence of the effectiveness of behavioural interventions in the treatment of challenging behaviour (Lindsay, 2001), the most commonly used interventions were physical restraint, sedation, seclusion and mechanical restraint. The authors identify a number of factors which they feel has resulted in the failure to respond to challenging behaviour appropriately. These include: organisational inefficiency, conflict between the philosophy of the service and beliefs about behavioural interventions, lack of knowledge of staff, including specialist health staff and insufficient resources.

The need to recognise the role that services may have in both ameliorating and maintaining challenging behaviour has, therefore, become more important with the changes in service provision for individuals with learning disabilities (McGill & Mansell, 1995). As noted above, over the past decade this has involved a transfer from institution based settings to settings based within the community (Hastings & Remington, 1994). In tandem with this change in service provision has come an increasing recognition both of the complexity of maintaining factors in challenging behaviour and the factors

important in developing effective intervention strategies. In particular, increasing emphasis has been placed on the role of those who support people with learning disabilities.

4.1.2 The impact of others on challenging behaviour

The attitudes, knowledge and behaviour of social care and health professionals can directly impinge on the expression of challenging behaviour in a number of ways. These range from the impact on the self-concept of the individual being supported (Paris, 1993), the way services are organised and delivered (Slevin & Sines, 1996) and the quality of the service being delivered. As a result researchers have begun to examine the role carers in understanding challenging behaviour and its management.

In general, as noted above, a number of studies have found that increased experience of working with individuals with a learning disability leads to more positive attitudes (Slevin, 1995; Antonak et al., 1995). In relation to challenging behaviour, it has been found that experienced staff differ from inexperienced staff in relation to their attributions about the causes of challenging behaviour (Hastings et al., 1995) with experienced staff being more likely to identify environmental, emotional and biological factors as causes. Such differences in attributions may lead to different staff responses to the same incident of challenging behaviour.

Social Interaction and Client Contact

Allen (1994) argues that the availability and range of opportunities for individuals to engage in constructive activity and interaction impacts significantly on the image and competence of those labelled as having challenging behaviour. The move to community care has been found by some researchers to have resulted in an increase in the amount of contact and interaction between carers and clients and has highlighted differences between clients living in the community and in residential settings (Felce & Repp, 1992; Hemming et al., 1981; Mansell & Beasley, 1990), although increased contact is not

found across all community-based services (Abraham et al., 1991). The changes in social contact have been noted by Hastings & Remington (1994) to relate to challenging behaviour in two possible ways: increased attention may reinforce challenging behaviour, while decreased contact may lead to clients engaging in self stimulatory activities (stereotypy or self injury). In addition, increased contact can be counter-habilitative if the quality of staff interactions are poor (Hastings & Remington, 1994) or do not contribute to the individual learning more adaptive ways of expressing their needs (Hile & Walbran, 1991). The relationship between social contact and challenging behaviour is therefore complex.

4.1.3 Staff responses to the management of challenging behaviour

The capability of services to respond to challenging behaviour relies on staff ability to react safely and appropriately to the occurrences of episodes of challenging behaviour, devise interventions based upon clearly articulated beliefs about the function of the behaviour for the individual and implement long-term alternative strategies to meet the individuals needs (Department of Health, 1993). Research has therefore focused on these three main areas: Reactive Responses; Psychological Principles; Positive Programming.

1. Reactive Responses

The manner in which care staff initially react to challenging behaviour may influence the behaviour itself and vice versa (Hastings & Remington, 1994). Self injurious behaviour and aggression have been shown to elicit strong negative emotions in staff (Hastings & Remington, 1994). Bromley and Emerson (1995) noted that care staff report emotions such as anger, despair, annoyance, sadness and disgust in response to episodes of challenging behaviour. These responses seemed to be related to the unpredictability of behaviour, difficulty understanding the behaviour, the daily routine of caring and not being able to see a plan for moving forward.

Staff responses are of particular importance, given that the consequences of behaviour can decrease or increase the behaviour (Donnellan et al., 1988) and may contribute to the success or failure of behavioural interventions (Hastings & Remington, 1994). The effective use of protective reactive strategies is vital, especially when dealing with clients whose behaviour is self injurious or aggressive towards others. Self protection strategies are important to ensure the safety of the carer, however, staff also have a duty of care to clients in their care (McKay, 1991). In such situations professionals and carers are obliged to intervene for the benefit or protection of the client, even if this means going against the client's personal preferences. Research indicates that care staff do not always intervene effectively in situations where the client may be at risk (Hastings et al., 1995).

2. Psychological Principles

Hastings and Remington (1994) note that challenging behaviour can have different and multiple causes and functions, for example environmental or communicative. Thus, understanding the function of the behaviour and knowledge of basic behavioural principles forms a fundamental basis to understanding the challenging behaviour and formulating appropriate management strategies (Donnellan et al., 1988).

3. Positive Programming

Positive Programming is the process whereby, following the function of the behaviour being determined, alternative, constructive behaviour is implemented enabling the client to achieve or communicate the same need. This may include:

- Teaching a new behaviour
- Teaching alternative behaviours
- Giving meaning to behaviours whose meaning at the time may seem unclear. In this way the behaviour is shaped into a communication which can then gradually be replaced by a new method of communication.
- Substituting different ways of communicating

The combination of the development of appropriate and safe reactive strategies, functional analysis of the behaviour, using psychological principles and the implementation of a positive programming approach tailored to the individual's needs, offers an effective response to challenging behaviour.

4.1.4 Summary

By definition challenging behaviour challenges the service to determine the unmet needs of the individual and a failure to intervene effectively can lead to a number of negative outcomes for the client and others. The complexity of the factors that may influence the successful analysis and management of challenging behaviour has been outlined. Some key factors which have been identified as shaping the approaches of staff and carers towards challenging behaviour are their attitudes, attributions, skills and knowledge. With the exception of families, the health and social care professions are the two groups most likely to provide regular support and input to those individuals displaying challenging behaviour. Study 3 will focus on one component of this: staff understanding of the term 'challenging behaviour' and their understanding of the factors identified as important in the successful management of challenging behaviour.

4.1.5 Aims

The aims of study 3 were to investigate the relationships between the following: professional background and length of experience of working in learning disability services and understanding of the term 'challenging behaviour' and opinions on factors identified as important in managing challenging behaviour.

4.2 Method: Study 3

4.2.1 Study 3: Staff knowledge about the meaning and management of challenging behaviour

Participants

Study 3 involved two groups: health (n = 23) and residential social care workers (n = 72), giving a total sample size of 95. Six (26%) of the health staff had previously participated in study 1, while none of the social care workers had done so. Health staff included staff from the following services: three community learning disability teams (with a composition of nursing, clinical psychology, psychiatry, speech and language therapy, physiotherapy, occupational therapy and dietetics); specialist challenging behaviour in-patient unit; health service nursing home provision. Residential staff were from social work funded non-statutory housing agencies who provided day-to-day support for people with a learning disability in small group homes and supported tenancies.

Procedure

The study was questionnaire based and questionnaires were randomly distributed. Randomisation was achieved by asking every second staff member that the author came in contact with to participate. All staff who participated in the study were assured that participation was voluntary, that all responses were anonymous and confidential and that they formed part of a research project. All participants were employed in providing a service to individuals with a learning disability. All those approached agreed to participate giving a response rate of 100%.

As with study 1, responses were either recorded verbatim by the researchers or the participants wrote their responses in the presence of the researchers. Participants were given the option of which response method they preferred for two reasons: to avoid embarrassment for those individuals who had difficulty with reading or writing and to allow for the fact that the articulation of people can be effected by whether they give

written or spoken responses (McColl et al., 1993). All responses were analysed by two raters to determine inter-rater reliability. Inter-rater reliability was calculated using the Kappa statistical measure. As with studies 1 and 2, in all cases where parametric statistics were used it was ensured that the data distribution did not differ significantly from the normal distribution curve.

Measure

All participants were given a questionnaire which asked the following questions:

- a) What is your understanding of the term "challenging behaviour"?
- b) What do you think the most important factors are in managing challenging behaviour?

In addition, staff were asked to give the number of years experience they had in the field of learning disabilities and indicate their professional background. The style of management of challenging behaviour was measured by asking the staff to comment on what they each thought the most important aspects to remember were when dealing with challenging behaviour.

Understanding of the term "challenging behaviour"

Two raters scored each response to the first question regarding understanding of the term "challenging behaviour" in terms of:

- a) Topography - e.g. aggression, self injury, stereotypy.
- b) Safety - of the client or other individuals
- c) Limited access to community resources
- d) Behaviour which the community or worker found it difficult to cope with

In addition, each response was assigned a score from 0 - 4, depending on how many of the categories above were mentioned.

Table 6 below gives examples of responses and scores in relation to the question what is your understanding of the term "challenging behaviour".

Table 6 : Examples of responses and scoring criteria in relation to understanding of challenging behaviour.

Example	Score	Reason
Behaviour that is unpredictable or aggressive	1	One category is described-topography
Any behaviour a service has difficulty in dealing with/responding to	1	One category is described- the community finds it difficult to cope
Behaviour that results in harm to self or others, which causes stress or prevents the use of community resources	3	Three categories indicated-topography, safety and access to community resources

Managing challenging behaviour

Responses to the question ‘What are the most important aspects to remember in relation to dealing with challenging behaviour?’ were scored by two raters in terms of:

- Reactive responses - e.g. issues relating to safety and protection, a need to be calm etc.
- Psychological approach and principles - e.g. function of behaviour, consistency, reinforcement, triggers etc.
- Positive programming - implementation of long term skills that are alternative to problem behaviour.

Responses were also assigned a score from 0 - 3 depending on how many of the categories above were included in the response.

Table 7 below gives examples of answers and scoring criteria in relation to managing challenging behaviour.

Table 7: Examples of answers and scoring criteria in relation to managing challenging behaviour.

Example	Score	Reason
Be consistent with your behaviour	1	One category indicated-psychological principle
Proper assessment of its function	1	Psychological principle
Does the behaviour fulfil a function? If so can an alternative be introduced to replace the behaviour	2	Two categories indicated-psychological principle and positive programming

4.3 Results: Study 3

4.3.1 Study 3: Staff knowledge of the meaning and management of challenging behaviour

Inter-rater Reliability

Results were analysed using the Kappa statistical procedure. Inter-rater reliability for all four 'definition' and all three 'management' criteria were found to have k values of 0.91 or above ($p < 0.01$) indicating significant agreement between raters for all criteria.

Understanding of the term challenging behaviour

Figure 6 illustrates the percentage of health professionals and social care workers identifying each category in response to the question 'What is your understanding of the term challenging behaviour?'.

Figure 6: Category of responses identified by each professional group in response to the question ‘What is your understanding of the term challenging behaviour?’

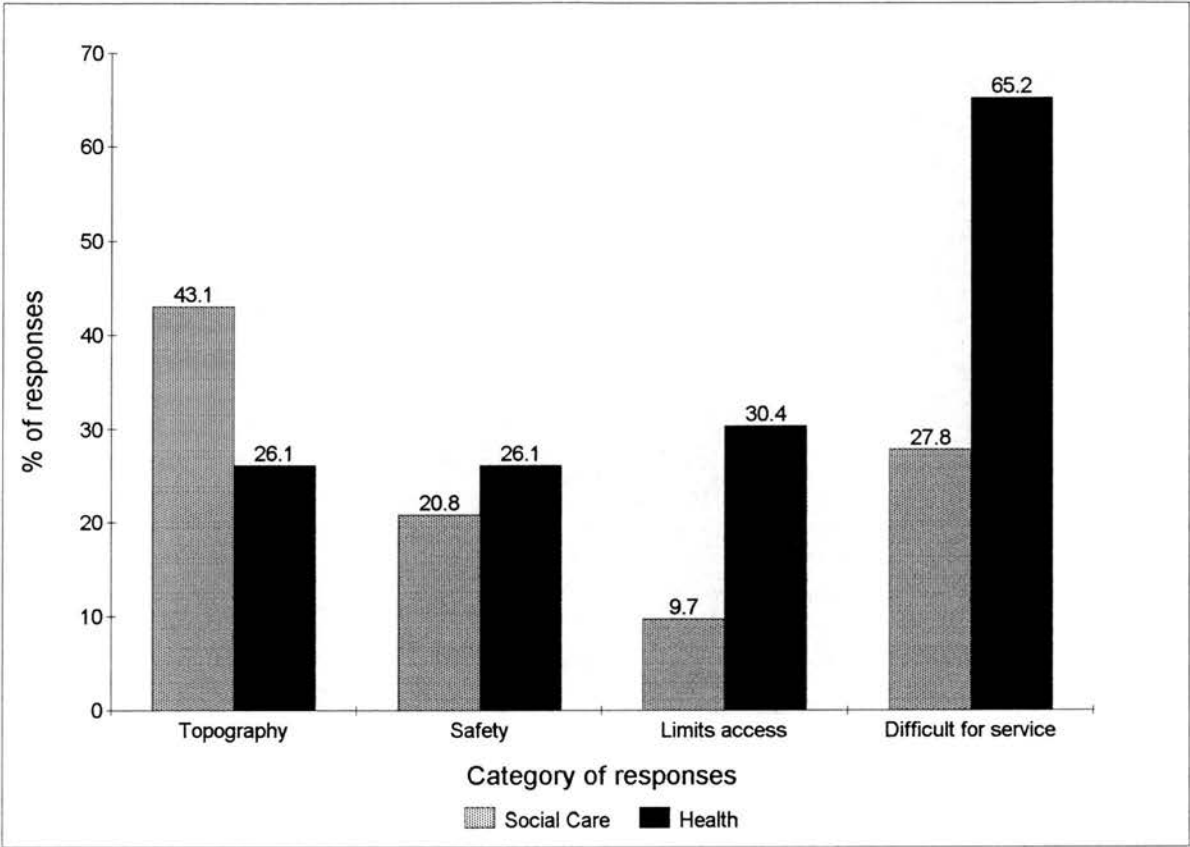
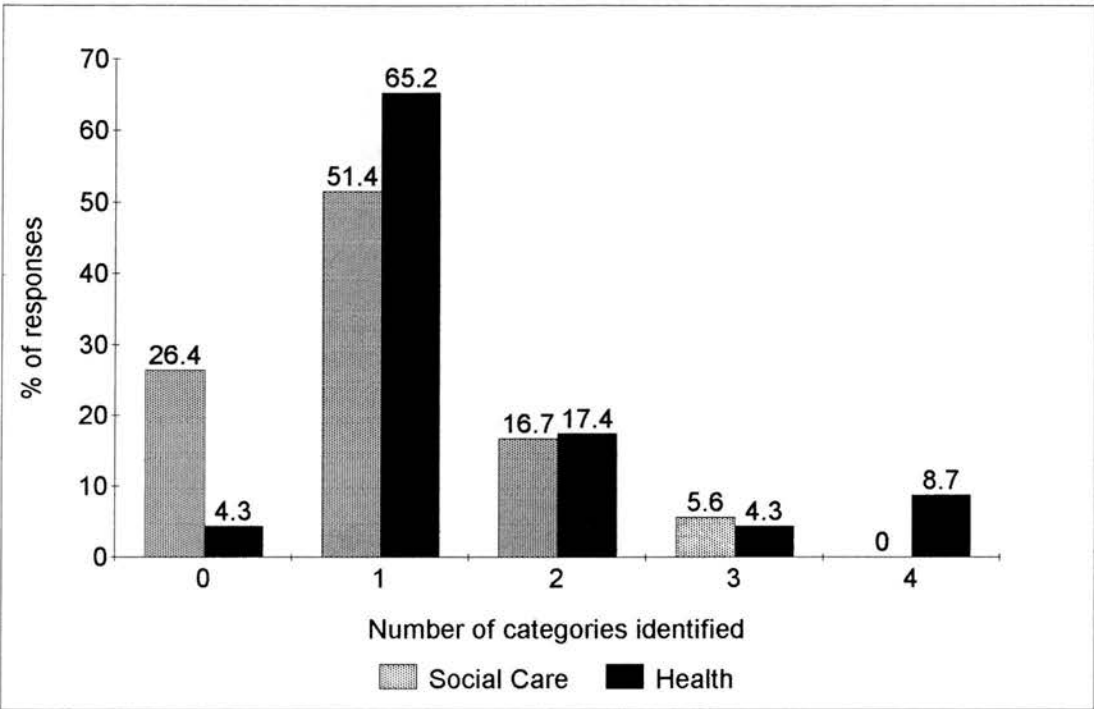


Figure 7 illustrates the percentage of each professional group identifying none, one, two, three or four of the categories in response to the question ‘What is your understanding of the term challenging behaviour?’

Figure 7: Number of categories identified by each professional group in response to the question ‘What is your understanding of the term challenging behaviour?’



Comparison of responses between social care and health professionals

Category identified

A Chi square demonstrated that the identification of category 4 (behaviour which the community or worker found it difficult to cope with) was significantly associated with the professional group ($X^2 = 10.5$, $df = 1$, $p < 0.01$), with the health group more likely to identify this criteria.

Number of categories identified

An independent samples t-test found a significant difference between the mean scores for the two groups ($t = 2.26$, $df = 93$, $p < 0.05$), with the health group identifying more criteria than the social care group.

Categories identified within the social care group

A Cochran's Q test was conducted which demonstrated that the frequency of identified responses differed significantly across the four definition criteria ($Q = 21 - 25$, $df = 3$, $p <$

0.01), with individuals being more likely to refer to topography than safety ($X^2 = 6.62$, $df = 1$, $p < 0.05$) or limiting access to resources ($X^2 = 17.63$, $df = 1$, $p < 0.01$).

Categories identified within the health group.

A Cochran's Q test was conducted which demonstrated that the frequency of correct responses differed significantly across the four definition criteria ($Q = 10.69$, $df = 3$, $p < 0.05$), with individuals being more likely to refer to challenging behaviour as something that the service/carer found difficult to deal with than topography (binomial; 2-tailed, $df = 1$, $p < 0.05$) or safety (bi-nominal; 2-tailed, $df = 1$, $p < 0.05$)

Factors identified as important in dealing with challenging behaviour

Figure 8 illustrates the percentage of each professional group identifying each of the three management factors as important in dealing with challenging behaviour.

Figure 8: Percentage of each professional group identifying each of the three management factors in relation to challenging behaviour.

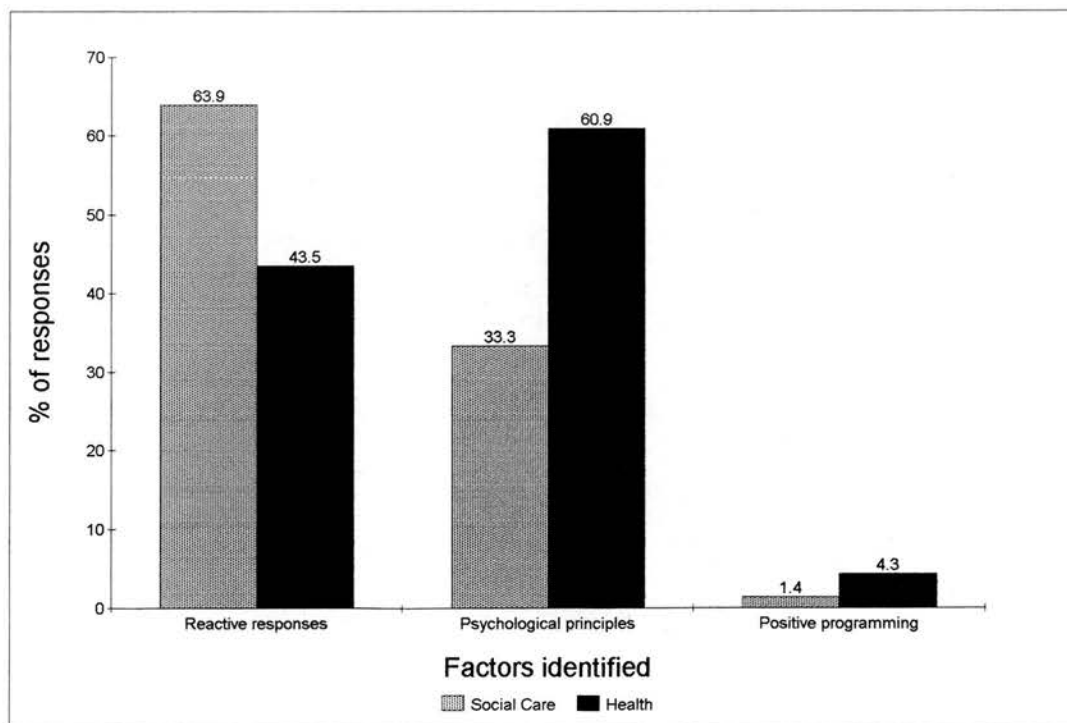
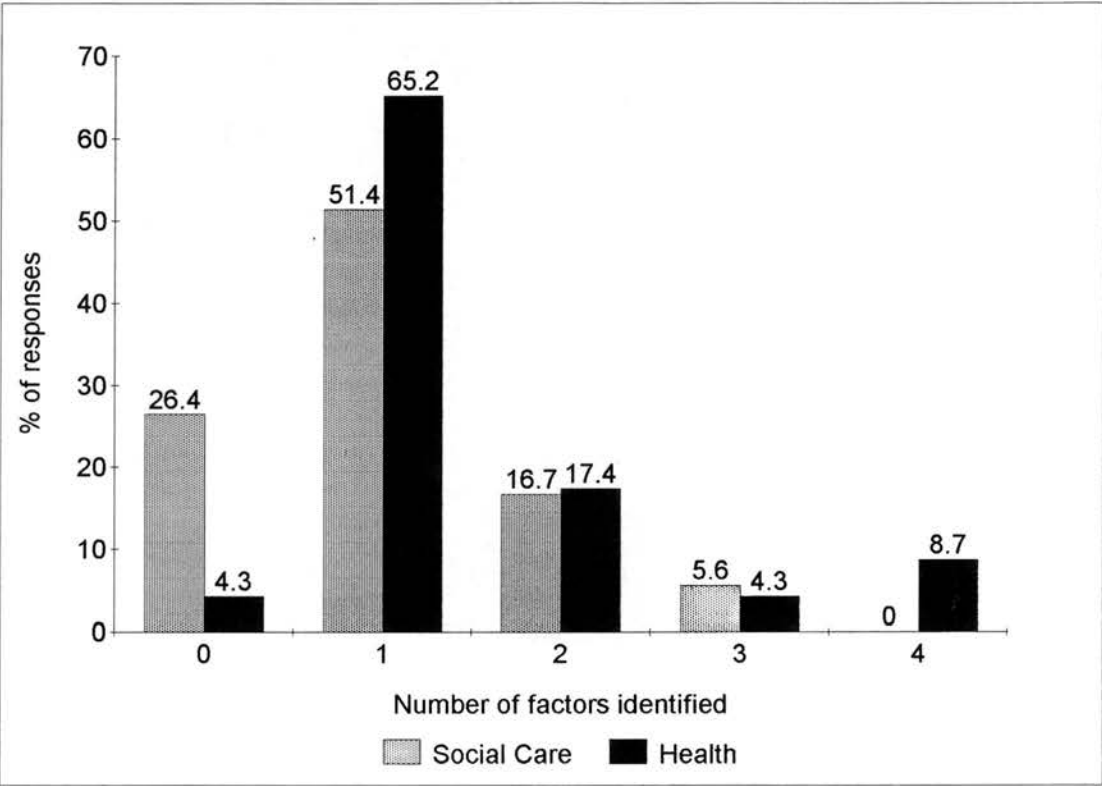


Figure 9 illustrates the percentage of each professional group identifying none, one, two or three of the ‘management ‘ factors as important in dealing with challenging behaviour.

Figure 9: Percentage of each professional group identifying none, one, two or three of the management factors in relation to challenging behaviour.



Comparison of responses between social care and health professionals

A chi square demonstrated that the identification of the factor, psychological principle, was significantly associated to the professional group ($X^2 = 5.51$, $df = 1$, $p < 0.05$), with a higher percentage of the health staff identifying this criteria than social care staff.

An independent sample t -test demonstrated there was no significant difference between the mean scores for the two groups in terms of number of factors identified.

Factors identified as important in managing challenging behaviour by the social care group

A Cochran’s Q test was conducted which demonstrated that the frequency of identified responses differed significantly across the three categories ($Q = 49.80$, $df = 2$, $p < 0.01$)

with social care workers being significantly more likely to identify reactive responses than psychological principles ($X^2 = 8.48$, $df = 1$, $p < 0.01$) or positive programming approaches ($X^2 = 41.19$, $df = 1$, $p < 0.01$).

Factors identified by health professionals

A Cochran's Q test was conducted which demonstrated that the frequency of identified responses differed significantly across the three factors ($Q = 14.78$, $df = 2$, $p < 0.01$) with health professionals being significantly more likely to identify reactive responses than positive programming approaches (binomial, 2-tailed, $df = 1$, $p < 0.05$). The majority (60.9%), however, identified psychological principles as important in dealing with challenging behaviour.

Experience and Professional Group

T - tests for independent samples demonstrated a significant difference in the mean number of years of experience between the two groups ($t = -3.70$, $df = 93$, $p < 0.01$), with health staff having worked longer on average ($m = 10.35$, $sd = 6.84$) than the social care staff ($m = 5.28$, $sd = 5.33$).

Experience and identification of 'definition' and 'management' factors in relation to challenging behaviour

A Pearson Correlation revealed significant relationships between the experience of social care staff and their "definition" score ($r = 0.33$, $p < 0.01$), and their "management" score ($r = 0.31$, $p < 0.01$). The more experience the staff had the more categories were identified, both for the understanding of challenging behaviour and factors identified as being important in dealing with it. A Pearson Correlation revealed no significant relationships between the experience of health staff and their "definition" score or their "management" score.

4.4 Discussion: Study 3

4.4.1 Study 3: Staff knowledge of the meaning and management of challenging behaviour

In study 3, which examined staff knowledge about the meaning and management of challenging behaviour, health staff were found to identify significantly more aspects of the concept "challenging behaviour" than social care staff. This was similar to the results of study 1 where health staff were found to have a greater overall knowledge of the criteria for a learning disability. This might be expected as the work of health staff is largely more specialist in nature. For example, health work may naturally involve more emphasis on detailed assessment and treatment of clients referred for challenging behaviour.

This knowledge and experience, however, did not always seem to translate into greater knowledge in terms of management skills. This was suggested as no significant difference was found between the two groups for their overall score on management criteria. Rather, the emphasis of where that knowledge lies appears to be different. A significantly greater percentage of health staff identified psychological principles as being of greatest importance in managing challenging behaviour, while a greater percentage of social care staff identified initial reactive responses. It appears that health staff knowledge may be more based on the understanding of psychological principles, possibly as a result of training. On the other hand, the social care staff response seems to be one which has been learned through experience, and is required to maintain personal and client safety. Interestingly, very few health and social care staff mentioned positive programming approaches to challenging behaviour. It appears that workers may tend to focus on controlling the challenging behaviour without helping the individual to replace it with a more appropriate, alternative behaviour.

Health staff seemed more likely to identify challenging behaviour in terms of its impact on the service. On the other hand social care staff appeared to concentrate on the type of

behaviour evident - topography. This echoes observations by Hastings et al. (1997) who say that challenging behaviour is often recognised by its topography. Hastings and Remington (1994) note that staff can make attributions about challenging behaviour based on information most readily available to them. They note that this may often be the topography as it is often the most unambiguous dimension. Cheseldine and Stansfield (1993) and Wing (1996) have also observed this tendency to use the terms "challenging behaviour" and "problematic behaviour" interchangeably, voicing concern that it may result in labels for individuals which are difficult to shake off. It appears that health staff are more focused on how the service can help. Hence they seem to interpret the term "challenging behaviour" in terms of its challenge to the service, rather than focusing on the problematic nature of the behaviour.

Health staff had significantly longer experience than social care staff. Interestingly, the longer the experience of the social care staff, the higher their overall scores for the definition and management criteria. A similar result was found in relation to knowledge of the criteria of a learning disability, with the more experienced staff having a greater awareness of the criteria. Increased contact with people with a learning disability has been found in previous studies to lead to increased knowledge of types of intervention (Bromley & Emerson, 1995) and quality of day-care provision (Munton et al., 1995). However, no significant relationship was found between experience and overall scores amongst health staff. This could be understandable in that social care staff do not have as much formal training as health staff, hence they may learn more by experience. Health staff on the other hand usually enter the profession following formal training, therefore experience is not the main or only avenue of learning about or understanding challenging behaviour. Training has been identified by a number of authors as a means of successfully increasing staff knowledge (Kobe & Mulick, 1995; Allen et al., 1997).

Psychologists have an important role to play in multidisciplinary team work amongst people with a learning disability and a large proportion of their work may be in relation to

challenging behaviour referrals (McKenzie et al., 2000). Previous research has indicated that psychologists can successfully apply their knowledge and experience to the provision of staff training (Taylor et al., 1996).

Study 3 does, however, does have a number of limitations. The most obvious is that the results were based on respondents' written responses to a questionnaire. It is likely that this accurately reflected respondents' understanding of "challenging behaviour".

However, the approaches identified as important in dealing with challenging behaviour, may not be those which staff use in practice. Hastings and Remington (1994) have found discrepancies between staff reports about responses to challenging behaviour and observational studies which reflect actual responses. Study 3 does differ from the above in that it aimed to examine staff beliefs about what factors were important in managing challenging behaviour, rather than how staff actually responded. This gives some indication of where the need for staff training lies.

A further limitation, shared with studies 1 and 2, is the fact that the results may be specific to the geographical areas studied. Work by previous researchers does, however, indicate that a low level of knowledge in relation to staff understanding and management of challenging behaviour occurs in other areas (Hastings and Remington, 1994; Allen et al., 1990; Sharrad, 1992). Study 3 also begs the question of the exact relationship between knowledge and experience and whether the increased knowledge found in more experienced staff was as a result of their opportunity to receive more training than less experienced staff over the years or whether this resulted from information, strategies and practises which were picked up and developed as part of the individuals' working life. This question is addressed in Study 5 below.

As with the previous studies, more detailed methodological limitations are given in chapter six of the thesis.

In summary, study 3 examined the level of knowledge of social care staff and health staff in terms of their understanding of the term "challenging behaviour" and its management. Health staff identified significantly more definition criteria than social care staff, yet no significant difference was found between their overall scores for management criteria. Rather the emphasis of their knowledge of management principles appeared to be different. A significantly greater percentage of health staff identified psychological principles as important in managing challenging behaviour, while a greater percentage of social care staff emphasised reactive responses. Very few health and social care staff mentioned positive programming in the management of challenging behaviour. Health staff seemed more likely to identify challenging behaviour in terms of its impact on the service while social care staff appeared to concentrate on the type of behaviour evident. Lastly, the longer the experience of the social care staff of working in learning disability services, the higher their overall scores for the definition and management criteria. However, no significant relationship was found between this experience and overall scores amongst health staff.

Chapter five: Study 4

5.1 Introduction: Study 4

5.1.1 Duty of Care

By definition individuals with a learning disability require support with some aspects of their daily life. The term also recognises a potential vulnerability which is acknowledged in the concept of duty of care (Nunkoosing, 1995). When a person with a learning disability puts him/herself or others at risk, a duty of care, both ethical and legal, exists with regards to professionals involved in that client's care, ie "They have a responsibility to take reasonable steps to protect the welfare of that person" (McKay, 1991, p37). The more vulnerable the person the stronger the duty of care will be (McKay, 1991), and on occasions it may be necessary to intervene against the apparent wishes of clients in order to protect them from harm or unacceptable risk, if their choice is not an informed one.

The concept of duty of care, therefore, incorporates a number of principles which are of fundamental importance to people with a learning disability and those who support them. The main aspects of duty of care identified by authors are outlined below:

- It results when paid staff have duties and legal responsibilities imposed on them as part of their job (Ashton & Ward, 1992).
- It involves a responsibility to take reasonable steps to protect the welfare of the person, other residents and members of the public (McKay, 1991).
- It includes the responsibility of services to provide living, educational and occupational environments that facilitate the growth and development of clients and to ensure that staff have sufficient skills and training to provide this (Nunkoosing, 1995).

While the concept of duty of care exists for the protection of vulnerable clients it does not preclude risk-taking, if these risks have been assessed and are judged to be reasonable in accordance with current professional standards of care (McKay, 1991). The

application of the concept of duty of care to everyday practice can be complex, due to the different areas of responsibility. Unfortunately, services may lack clarity about how and when to implement their duty of care, even when guidelines are available (Brown et al., 1994). Research also suggests that the concept of duty of care may go unrecognised or may not be acted upon.

Lyall et al. (1995) found that the tolerance of dangerous and antisocial behaviour of clients in some residential and day care provision in the Cambridge Health District was high, with theft, criminal damage and sexual assault often going unreported. Similarly, Brown et al. (1994) and McCarthy and Thompson (1997) demonstrated that the sexual abuse of clients with a learning disability is often dealt with haphazardly because staff are unclear about their roles and responsibilities. In addition, research indicates that care staff do not always intervene effectively in situations where a client places him/herself at risk (Hastings et al., 1995). One of the most important tasks of all staff supporting individuals with a learning disability is, therefore, the need to balance a duty of care towards the person they support while facilitating the individuals' rights and choices (O'Brien, 1992).

The understanding and sensible application of concepts such as a services' "duty of care" to clients relies heavily on a basic understanding of the defining characteristics of a learning disability. For example, if staff are not aware that an individual with a learning disability, by definition, does not have the intellectual capacity or skills to make an informed choice, they may not recognise their "duty of care" to protect or support the individual in that particular area of their life.

5.1.2 Enabling client choice

To some extent, people with a learning disability have been viewed historically as being unable to make decisions about, or take any responsibility for their lives (Wolfensberger, 1975). Increasingly, however, there is a recognition of the rights and citizenship of

individuals with a learning disability as is reflected in the Declaration of the general and specific rights of the mentally retarded (United Nations, 1971). One key area which has been influenced by this is the recognition of the importance of enabling client choice. This recognition arose largely from the principle of normalisation (Wolfensberger, 1972).

Tyne and O'Brien (1981) developed this philosophy in relation to service provision, suggesting that a good service recognised and promoted the 'Five Accomplishments' i.e. choice, community presence, relationships, respect and competence. Services for individuals with a learning disability are increasingly being evaluated by these criteria (McGowan, 1996; Murray et al., 1998). Facilitating choice has also been seen as one of the key roles of both health (Jackson & Jackson, 1998) and social care staff (Rawlings et al., 1995) supporting individuals with a learning disability, and there has been an emphasis on developing procedures which allow individuals with more complex or severe learning disabilities to express their choice (Lancioni et al., 1996). It has been suggested that the more control that individuals with a learning disability have over their lives, the less likely they are to resort to challenging behaviour in order to have their needs met (Lancioni et al., 1996).

Choice has been defined in a number of ways with an emphasis on either a selection from preferred alternatives (Shevin & Klein, 1984) or a response from a range of possible responses (Rawlings et al., 1995). The concept of facilitating and promoting the choices of individuals with a learning disability has, therefore, become a major theme in policy documents (Stalker & Harris, 1998).

While services may endorse the notion of facilitating client choice, they may not always be aware of how to do so (Jenkinson et al., 1992). Staff may also experience conflict about what is a good choice for the client (McGill & Emerson, 1992). In order to help clients make a valid choice staff may need to ensure that certain criteria are fulfilled. These include an assessment of the clients' capacity to make a choice, the provision of

information about the available options and potential consequences and allowing the client the time and opportunity to make a choice (Jackson & Jackson, 1998). Staff also have a responsibility to make a risk assessment of the available options. The role of a professional working with clients with a learning disability may therefore represent a balance between maintaining a client's behaviour within certain parameters (duty of care) and an obligation to make choices available to the client to the extent that he/she can make valid decisions (enabling choice).

5.1.3 Summary

Any professional group providing a service to people with a learning disability has a legal (Ward, 1984), professional and moral obligation to have a knowledge of the characteristics and needs of that particular client group, as well as an awareness of their professional roles and responsibilities. Health professionals and social care staff constitute two of the largest groups involved in the care of people with a learning disability. It is therefore essential that these groups have an understanding of what implications having a learning disability has on the individual and provision of care in respect of duty of care and facilitating informed choice.

5.1.4. Aims of study 4

Study 4 aims to:

- Examine health and social care staff understanding of the definition of the term 'duty of care' and the relationship of this with the application of the concepts of duty of care and promoting client choice as measured by responses to two scenarios.
- Examine if differences in the results exist in relation to: professional background and years of experience of working in learning disability services.

5.2 Method: Study 4

5.2.1 Study 4: Knowledge of Duty of Care and the relationship of this with staff practice

Study 4 examines the level of knowledge of staff about the concept of duty of care, and how this relates to responses to two scenarios which require participants to apply the concept in practice.

Participants

Two groups of staff participated. These were health staff ($n = 27$) and residential staff ($n = 59$), giving a total of 86. All participants were employed in providing a service to individuals with a learning disability. Health staff included staff from the following services: three community learning disability teams (composed of nursing, clinical psychology, psychiatry, speech and language therapy, physiotherapy, occupational therapy and dietetics); specialist challenging behaviour in-patient unit; health service nursing home provision. Residential staff were from non-statutory housing agencies providing day-to-day support for people with a learning disability in small group homes and supported tenancies.

Procedure

A sample of staff from two groups from the Lothian & Borders areas was approached and the nature of the study explained. Randomisation was achieved for the social care staff by asking every second staff team that the author came in contact with to participate. In relation to the health staff, all staff whom the author came in contact with were asked to participate. All participants were informed that participation was voluntary, that their responses were anonymous and confidential and that the results formed part of a research project. All staff who were approached agreed to participate, giving a 100% response rate. At least seven health staff had previously participated in study 1 or 3 (26%). All responses ($n=86$) were scored by two raters to give a measure of inter-rater reliability. As with the previous studies, in all cases where parametric statistics

were used it was ensured that the data distribution did not differ significantly from the normal distribution curve.

Piloting the Questionnaire

The questionnaire had previously been piloted with 14 health staff and 17 social care staff, using two different scenarios (McKenzie et al., 1999). From this pilot, it seemed that participants were influenced by the apparent level of ability of the client, which was implied by the information given in the scenario itself. The scenarios for study 4 were altered so that all of the people depicted appeared to have the same broad ability level.

The scenarios were also chosen which met the following criteria:

- They reflected situations which staff working in learning disability services were likely to come across.
- They reflected situations where there was a potential risk to clients which appeared to conflict with the choices they expressed.
- At least one scenario reflected a situation where there was published literature about the legal responsibilities of staff both in terms of duty of care and facilitating the expression of the persons' choice (Craft & Craft, 1983; McKay, 1991; Murphy & Clare, 1995).

The revised scenarios were given to 5 health staff and 6 social care staff for comments.

All of the staff approached felt that the scenarios had face validity and met the criteria outlined above. The questionnaire was therefore adopted for use in Study 4.

Measure

All study 4 participants (n = 86) were asked to complete a questionnaire which requested the following information:

- How long have you worked with people with a learning disability?
- Job Title.
- Please state in your own words your understanding of the term 'duty of care.'

Duty of care was defined as incorporating all of the factors outlined in the introduction above. Responses were scored according to whether they referred implicitly or explicitly to the following factors:

- Responsibility: That staff had a responsibility to care for clients as part of their job/profession.
- Accountability: That duty of care was a legal and professional obligation for staff for which they were held accountable.
- Quality of Service: That staff had an obligation to provide an environment that enhanced the quality of life of the client.
- Safety of Clients: That it involved protecting the client from harm.
- Safety of Others: That it involved protecting others from harm e.g. other clients/members of the public.
- That intervention could sometimes be required even if this went against the expressed wishes of the client.

A response was given one point for each of these factors that was mentioned, giving a maximum score of 6 and a minimum score of 0. Table 8 illustrates some examples of scored responses.

Table 8 : Examples of scored responses in relation to the question ‘What is your understanding of the term duty of care?’

Criteria	Example
Responsibility	'A responsibility to care' 'It's part of my job-what I have to do'
Accountability	'A legal and professional obligation' 'It's part of the standards I'm judged against by my organisation'
Quality	'To provide the best care possible for clients' 'To give a service to the best of my ability'
Client Safety	'To protect clients from harm' 'To make sure they are safe'
Safety of Others	'To prevent harm to others' 'To make sure X doesn't hurt himself or anyone else'
Intervention against choice	'Sometimes you have to do it even if they don't want' 'It's necessary to protect them, but they don't want it'

In addition, participants were given the following two scenarios. These scenarios were chosen as reflecting situations which arose fairly commonly in day to day practice and in which the client was expressing a choice, but which also clearly required the respondents to recognise a duty of care to clients:

Scenario One

James is a young man currently living in a group home. He enjoys eating what most people consider to be unhealthy. He is presently overweight, but has expressed a preference for not going on a diet.

How would you deal with this situation?

What would be the deciding factors for you in choosing how to deal with this situation?

Scenario two

Graham was a previous sexual offender. He is now beginning a relationship with Lucy. Both live in a residential home. They have asked to close and lock Lucy’s bedroom door when they are alone together. Staff suspect that they wish to begin a sexual relationship.

How would you deal with this situation?

What would be the deciding factors for you in choosing how to deal with this situation?

Responses were scored according to whether they referred to the following factors:

- recognising the clients’ choice.
- recognising staffs’ duty of care.
- the requirement to assess risk for the client e.g. in terms of health, sexual knowledge.
- the requirement to determine if the individual was making an informed choice e.g. assess level of ability.

A response was given one point for each of these factors that was mentioned, giving a maximum score of 4 and a minimum score of 0. Table 9 illustrates some examples of scored responses.

Table 9: Examples of scored responses in relation to scenarios one and two.

Criteria	Example
Recognising duty of care	'Introduce more healthy foods' 'Say no until I've spoken to her privately about it'
Facilitating choice	'It's up to him what he eats' 'Give them privacy if that's what they want'
Assessing risk	'Ask the doctor about the impact on his health' 'Check that both are consenting-he's not forcing her'
Assessing if choice is informed	'Find out what he understands about healthy eating' 'Check their knowledge about sex and relationships'

5.3 Results: Study 4

5.3.1 Study 4: Knowledge of duty of care and the relationship with staff practice

Inter-rater reliability

Eighty-six responses (100%) were analysed by two raters to give a measure of inter-rater reliability. Results were analysed using the Kappa statistical procedure. Kappa values ranged from 0.90 to 1.00, indicating significant agreement ($p < 0.001$) between raters for all factors. Table 10 illustrates the levels of inter-rater reliability for both the aspects of duty of care and responses to scenarios.

Table 10 : Inter-rater reliability for aspects of duty of care and responses to scenarios one and two

Criteria	Scenario	Kappa value	Significance
Responsibility		0.97	$p < 0.001$
Accountability		1	$p < 0.001$
Quality of care		1	$p < 0.001$
Client safety		0.97	$p < 0.001$
Safety of others		1	$p < 0.001$
Intervening against wishes		1	$p < 0.001$
Recognising duty of care	1	1	$p < 0.001$
	2	0.95	$p < 0.001$
Facilitating choice	1	0.93	$p < 0.001$
	2	0.95	$p < 0.001$
Assessing choice	1	0.97	$p < 0.001$
	2	0.95	$p < 0.001$
Assessing risk	1	0.9	$p < 0.001$
	2	0.91	$p < 0.001$

Table 11 illustrates the number and percentage of participants in each staff group and overall identifying each aspect of the concept of duty of care.

Table 11: Number and percentage of participants in each staff group identifying each aspect of the concept of duty of care.

Criteria	Health		Social care		Overall	
	Number	Percentage	Number	Percentage	Number	Percentage
Responsibility	17	63	44	74.6	61	70.9
Accountability	5	18.5	5	8.5	10	11.6
Quality of care	9	33.3	15	25.4	24	27.9
Client safety	12	44.4	8	13.6	20	23.3
Safety of others	3	11.1	0	0	3	3.5
Intervening against wishes	3	11.1	1	1.7	4	4.7

An independent samples t -test demonstrated that there was a significant difference between the mean scores of the health care group ($m = 1.81$, $sd = 0.92$) and the social care group ($m = 1.24$, $sd = 0.79$) for the identified aspects of duty of care ($t = -2.97$, $df = 84$, $p < 0.01$). A chi-square test illustrated that health care workers were significantly more likely to refer to client safety criteria than social care staff ($X^2 = 9.90$, $df = 1$, $p < 0.01$).

A Cochran's Q test demonstrated that, for all respondents, there was a significant difference in responses across the five aspects of duty of care ($Q = 142.19$, $df = 5$, $p < 0.01$), with Pairwise McNemar tests indicating that responsibility was significantly more likely to be identified than: accountability ($X^2 = 43.8$, $df = 1$, $p < 0.001$); quality of service ($X^2 = 26.4$, $df = 1$, $p < 0.001$); client safety ($X^2 = 27.1$, $df = 1$, $p < 0.001$); safety of others ($X^2 = 54.1$, $df = 1$, $p < 0.001$) and intervening against wishes ($X^2 = 53.1$, $df = 1$, $p < 0.001$). This pattern also held true for social care staff and health staff alone with the exception of 'client safety', which was as likely to be identified by health staff as 'responsibility'.

Factors identified as important in staff management approach

Table 12 illustrates the number and percentage of participants referring to each of the following factors as important in managing the situations depicted in scenarios 1 and 2 i.e. Recognising duty of care; facilitating client choice; assessing risk; assessing if choice was an informed one.

Table 12: Number and percentage of participants referring to each management approach in relation to scenarios one and two.

Vignette	Staff Group	Duty of care		Factor Enabling choice		Assessing risk		Informed Choice	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1	Health	27	100%	17	63	15	55.6	15	55.6
	Social	56	94.9	35	59.3	38	64.4	9	15.3
	Overall	83	96.5	52	60.5	53	61.6	24	27.9
2	Health	26	96.3	24	88.9	18	66.7	19	70.4
	Social	47	79.7	50	84.7	23	39	19	32.2
	Overall	73	84.9	74	86	41	47.7	38	44.2

Scenarios

An independent samples t-test demonstrated that there was a significant difference between the mean total scores of the health staff (m = 2.74, sd = 0.81) and the social care staff (m = 2.34, sd = 0.86) in relation to the number of factors identified as important in managing the situation for scenario one (t = -2.04, df = 84, p< 0.05). This also held true for scenario two (t = -4.18, df = 73.29, p< 0.01), with health staff having a mean total score of 3.22 (sd = 0.75) and social care staff having a mean of 2.36 (sd = 1.14).

In relation to the specific factors identified, chi square tests demonstrated that, for scenario one, health care staff were significantly more likely to identify the need to assess the individuals’ capacity to make an informed choice than social care staff (X² = 14.95, df = 1, p< 0.01). In relation to scenario two, health care staff were significantly more

likely to identify both the need to assess the individuals' capacity to make an informed choice ($X^2 = 10.94$, $df = 1$, $p < 0.01$) and to assess risk ($X^2 = 5.69$, $df = 1$, $p < 0.05$) than social care staff.

In relation to scenario one, a significant difference in responses for all participants were found across the four management approaches ($Q = 79.79$, $df = 3$, $p < 0.01$), with duty of care being significantly more likely to be identified than the remaining factors. This pattern was also found for both health staff ($Q = 15.63$, $df = 3$, $p < 0.01$) and social care staff ($Q = 72.58$, $df = 3$, $p < 0.01$). In addition, social care staff were significantly more likely to identify the factor 'enable choice' than 'assess the capacity to make an informed choice' ($X^2 = 22.32$, $df = 1$, $p < 0.001$). However, they were also significantly more likely to identify the factor 'Assess capacity to make an informed choice' than 'Assess risk to client' ($X^2 = 21.19$, $df = 1$, $p < 0.001$). This pattern was not found for health staff.

In relation to scenario two, significant differences in responses for all participants was also found across the four factors ($Q = 67.63$, $df = 3$, $p < 0.01$), with duty of care being significantly more likely to be identified than the other factors except 'enabling choice'. This pattern was also found for health staff alone ($Q = 10.13$, $df = 3$, $p < 0.05$) and social care staff alone ($Q = 60.29$, $df = 3$, $p < 0.01$). As was found for scenario one, social care staff were also significantly more likely to identify the factor 'enable choice' than 'assess the capacity to make an informed choice' ($X^2 = 29.03$, $df = 1$, $p < 0.001$). They were also significantly more likely to identify the factor 'Assess capacity to make an informed choice' than 'Assess risk to client' ($X^2 = 21.81$, $df = 1$, $p < 0.001$). This pattern was not found for health staff.

Experience

No significant differences were found between the mean number of years of working in learning disability services between the health ($m = 7.51$, $sd = 5.16$) and social care staff ($m = 6.27$, $sd = 5.94$). No significant relationship was found between years of working

in learning disability services and the following: knowledge of the concept of duty of care; responses to scenarios one and two.

Knowledge of the concept of duty of care and responses to scenarios

A Pearson correlation demonstrated that, for all respondents a significant correlation existed between total knowledge scores in relation to duty of care and responses to scenario two ($r = 0.20$, $p < 0.05$) i.e. the broader the understanding of the definition of duty of care, the more factors are identified as important in responding to scenario two. This relationship was also found for health staff alone ($r = 0.45$, $p < 0.01$).

5.4 Discussion: Study 4

5.4.1 Study 4: Duty of care

Study 4 found significant differences between health and social care staff both in their knowledge of the concept of duty of care and also in the way this knowledge was applied in response to scenarios. Overall, health staff had a broader knowledge of the concept. This difference may be for a number of reasons. An emphasis on professional duty of care occurs in the training of many health staff (UKCC, 1992, 1989). In addition, many are required to have a working knowledge of the legal framework within which they operate, within which the concept of duty of care is most often embodied such as the mental health acts. In contrast, many social care staff do not have a professional training (Knapp et al., 1989), and they may therefore see their duty of care more narrowly.

Both groups were most likely to see duty of care simply in terms of their responsibility to the client in terms of doing their job. In general, both groups were less aware that they were accountable both legally and to their employing organisation and few recognised a responsibility to protect the general public or other clients from harm. Previous research has also found that staff may fail to act appropriately to protect clients and others in situations of risk (Hastings et al., 1995). Health staff were, however, significantly more aware of the issue of client safety than social care staff. A common reason for referrals

to health professionals can be in relation to challenging behaviours which endanger the client or others (McKenzie et al., 2000). They are also often required to assess the capacity and skills of individuals with a learning disability in relation to particular tasks or situations and also to find interventions and supports which will allow the clients' expressed wishes to be safely met. It may therefore be that health staff are more used to thinking broadly of their duty of care in terms of client safety than social care staff.

Despite the fact that participants appeared to have a limited focus in relation to the concept of duty of care, this factor was significantly more likely to be identified in relation to the scenarios than the other factors, with the exception of enabling choice in scenario two. While it is encouraging that staff responses recognised the concept of duty of care, there was not always a recognition that it required to be exercised in a context of assessing both the risk to clients and others and whether the individuals' choice was an informed one (Jackson & Jackson, 1998). This may reflect the need for staff to receive input in relation to these broad factors in order to enable them to effectively implement their duty of care.

Health staff were found to have a significantly broader understanding than social care staff of the factors involved in effectively intervening in the situations depicted in both scenarios. While study 1 found differences in staff knowledge to be related to years of experience of working in learning disability services, no relationship between experience and staff knowledge was found in the present study. The differences found may, therefore, be more likely to be attributable to differences in the training received by, or the professional remit of each group as outlined above.

Study 4 also found a significant relationship between staff understanding of the concept of duty of care and responses to scenario two. This depicted a situation where staff not only have a duty of care to clients, but there are also related legal issues (Gunn, 1991). Those who had a broader understanding of the concept of duty of care were significantly

more likely to be aware of the range of factors involved in dealing adequately with the situation depicted i.e. striking a balance between duty of care to the client and facilitating choice by assessing both risk and client capacity to make an informed choice. There are a number of recommendations that clients with a learning disability should receive the support and education required to allow them to express themselves sexually (Craft & Craft, 1983). In addition, guidelines exist in relation to assessing client risk and capacity to make an informed choice (McKay, 1991; Murphy & Clare, 1995). For staff to deal adequately with the situation depicted in scenario two, it is necessary for them to take all these factors into account.

The results of the study 4 have a number of implications. To successfully support an individual with a learning disability, both health and social care staff must take into account a range of complex individual needs and skills and situational demands which may change daily or even moment to moment. Previous authors have noted that for staff to be effective they require training in relation to the values underpinning learning disability services as well as skills based training (Harper, 1994). Study 4 indicates that while staff appear to recognise that they have a duty of care to clients and a duty to promote client choice, they are not always aware of the factors that contribute to their intervening effectively. While staff may have access to guidelines in relation to specific areas e.g. sexuality or abuse, research suggests that these may be ignored or may be too complicated for staff to apply in practice (McVilly, 1997). It may be that what is required is for staff to have a more detailed and broader understanding of the principles to enable them to adapt them effectively and flexibly to situations as they arise.

Study 4 also indicates a continuing need for health and social care staff to work closely together. Health staff were found to have a broader understanding both of the concept of duty of care and the factors important in effectively managing the situations depicted. It was suggested that this was as a result of the specialist skills that health staff have in

assessing risk to and capacities of clients. There is a need to marry these skills with social care staffs' day-to-day knowledge of clients and the situations they encounter.

Study 4 does, however, have limitations. As with other questionnaire studies, the responses given by staff may not relate to what they would do in practice. In addition, staff responses may have been effected by the scenarios themselves. However, this should not have prevented staff from recognising the main principles underlying effective intervention in the situations depicted e.g. assessing risk to client, as these principles take into account all of the variables of the situation including client ability. Further detailed methodological limitations of the thesis are given in chapter six.

Chapter 6: Study 5

6.1 Introduction

6.1.1 Factors impacting on service quality

The literature and studies outlined above suggests that the staff knowledge base regarding a number of areas important for providing good quality services for clients with a learning disability is limited. While it is acknowledged that there are a number of additional varied and complex factors which can potentially impact on service quality (Emerson et al., 2000), some of which were outlined in chapter 1, Study 5 will focus on the impact that a one day training course has on knowledge levels.

The models of staff performance outlined previously (Reid et al., 1989; La Vigna et al., 1994) highlight the need to determine if poor staff performance results from a lack of staff knowledge or skills. If so, it is argued that training can be provided to address these deficits i.e. to ensure the staff have the core skills and knowledge to achieve the service goals competently. Studies 1-4 suggest that staff knowledge is limited in all of the groups and areas studied and that training may offer a solution. The following section outlines some of the strategies which have been identified by previous research as a means of improving staff skills and knowledge.

6.1.2 Staff education and Training

The quality of many community based services relies heavily on the skills and efficiency of staff (Porterfield, 1987; Rose, 1995; Hastings, 1995). Social care and day care staff spend more time in direct contact with clients than health care professionals and are therefore more likely to be agents of change in terms of introducing interventions and guidelines designed by health professionals (Berryman et al., 1994). In addition, as noted above the approaches adopted by these staff can both impact on client behaviours and contribute to the success or failure of interventions. The importance of staff training in the successful implementation of community care policies was highlighted early on in the white paper Better Services for the Mentally Handicapped (1971).

Subsequent research has also emphasised the importance of providing care staff with appropriate and relevant training (Hogg & Mittler, 1987; Social Service Inspectorate, 1990). In examining services deemed as excellent, Mansell (Department of Health, 1993) found that they invested heavily in training direct care staff. Another important factor was that all staff were trained together (Johnstone, 1988). The opposite would also appear to be true, with staff citing insufficient training as a major factor contributing to stress, burn-out and job turn-over (deKock et al., 1987; Ward, 1989).

While a number of professionals working in health and social work services may have a valuable mix of both formal training and practical experience which could benefit those staff working in learning disability services who lack basic knowledge about the client group, the most appropriate form of training for any given group is not always easy to establish. This may range from time-limited formal training courses to ongoing input. Taylor et al. (1996) conducted research involving a psychologist giving ongoing consultation regarding functional assessment and adhering to behavioural principles to staff working with a client who exhibited high rates of self-injury. They found that this intervention resulted in a significant decrease in the client's behaviour. However, it has been noted that any input must take into account the context within which staff work and an understanding of existing staff knowledge, attitudes and beliefs (Fitzsimmons & Barr, 1997). For example, staff supporting an aggressive client may require input on initial reactive strategies which maintain personal and client safety, before they can consider longer-term strategies. Similarly, misplaced or superficial training that fails to meet the needs of staff can reinforce negative attitudes and stereotypes (May et al., 1994).

In response to the need for training responsive to the needs of social care staff, a number of formal courses have developed in Britain. These include the introduction of National Vocational Qualifications (NVQs) (Care Sector Consortium, 1992) and the establishment in 1981 of the qualification of a Certificate in the Further Education and

Training of Mentally Handicapped People. In addition, accredited degree and diploma courses are available at a number of universities and colleges (McVilly, 1997). Despite this, a study by Knapp et al. in 1989 found that nearly half of staff working in community settings had failed to receive formal training. A more recent study by Smith et al. (1996) of 299 staff working within community based residential settings found that only 12% of managers and 17% of care staff had received induction training. In relation to other training, 75% of care staff in private establishments had not attended any courses in the previous five years. This was also true for 32% of local authority care staff, 17% of voluntary sector care staff and 4% of health care staff. All training was also found to be based on short in-service courses. In addition, only 45% of participants overall identified a need for further training. Research has also indicated that while both staff and managers of social care services identify many of the areas covered by qualifications such as NVQs as important, many felt that the training that they had received was inadequate in relation to that required for their job (McVilly, 1997).

Previous research has indicated that staff training can be a valuable avenue for increasing knowledge amongst those working in the field of learning disabilities (Kobe & Mulick, 1995; Nagarajaiah et al., 1994; Morch & Eikeseth, 1992; Wilson et al., 1991; Allen et al., 1997). However, other evaluations of the impact of training has not always found it to be cost-effective (Ziarnik & Bernstein, 1982) or to result in long-term behavioural or attitudinal change in staff (Baker, 1998; Evans, 1990). However, evaluating the effectiveness of staff training is difficult. Mansell (1989) notes that the impact of training is difficult to establish in complex social organisations, and as such is rarely attempted.

The outcome of training can also be effected by a number of factors:

- The social, organisational and political context that the staff work in (Harper, 1994). Thus, if changes in staff attitudes, knowledge and behaviour are not supported in the work environment they are unlikely to be maintained over time.
- Staff characteristics eg. experience, skills and knowledge (Landesman-Dwyer & Knowles, 1987).

- The perceived quality, relevance and applicability of the training itself (Harper, 1994; Ward, 1987). Thus, if the quality of the training is poor or the content irrelevant or not applicable to the target group it may be less likely to have the desired impact on staff.

Staff training can be time-consuming and expensive (Ziarnik & Bernstein, 1982) and it has not always been shown to be effective (Baker, 1998). However, if a service fails to provide staff with the skills, knowledge, motivation and support required to provide at least an adequate standard of service to clients this can be costly in terms of client and staff safety and well-being. It is therefore important to establish clearly the type and nature of the training needs of the service in question. It may be that for some services, deficits are due to limited staff knowledge, while for others organisational or motivational factors prevent staff knowledge from being applied. It is also necessary to establish which goals the training is designed to meet and to establish which outcome measures will be used to evaluate effectiveness. Ziarnik & Bernstein (1982) outline five different types of outcome measures used in this field:

- Subjective i.e. what staff report about the usefulness, validity, quality etc. of the training
- Cognitive i.e. knowledge gain
- Behavioural i.e. the impact of training on behaviour
- Client centred i.e. the impact on clients
- Organisational i.e. the impact on the work organisation.

Radical changes in service provision for people with a learning disability has led to a demand for cost-effective services and an increasing reliance on both health professionals and direct care staff to deliver this. Professional groups are being required to provide high quality, relevant and applicable clinical input and training while direct care staff are expected to have a basic level of knowledge about people with a learning disability which

allows them to sensibly and safely provide day-to-day support. The role of training is increasingly being advocated as a means of providing staff with this knowledge, however, the effectiveness of such training has not been unequivocally established.

6.1.3 Summary and Aims

All staff who are employed to work with individuals with a learning disability have a legal, ethical and professional obligation to have a knowledge of the characteristics and needs of the client group (Ward, 1984). With the changes in service provision there are two main staff groups who are responsible for the care of individuals with a learning disability: health and social care staff. Previous research and studies 1-4 suggests that the knowledge base of these groups may be inadequate and that this can have a negative impact on both clients and staff. Staff training has been highlighted as one means of improving staff knowledge and shaping staff attitudes (Allen et.al., 1997). Study 5 therefore has the following aims:

- To assess the impact of a one day training course on the knowledge of health, social care and day care staff about the factors measured in study 1, 3 and 4 i.e. criteria of a learning disability; definition and factors important in the management of challenging behaviour; definition of duty of care and responses to scenarios.
- To compare this with the knowledge of a control group who have not received this training
- To examine the impact of training over time

It was hypothesised that the trained group would show significant increases in their knowledge on all the factors measured, while the knowledge of the untrained group would remain the same.

6.2 Method: Study 5

6.2.1 Study 5: The impact of training on staff knowledge

Participants

Study 5 compared the knowledge of a group of staff who underwent a one day challenging behaviour course (Group 1), with the knowledge of a control group of staff who did not undergo this training (Group 2). The participants in group 1 were three sub-groups of staff who worked with individuals with a learning disability (residential staff, n = 20 , health staff, n =20, day care staff, n =19) giving a total of 59. Residential staff were from a non-statutory housing organisation and provided daily care in group homes or supported tenancies. Health staff consisted of the following: nursing staff, psychology assistants, clinical psychology trainees and speech and language therapists. Day care staff provided daily activities and education to individuals with a learning disability from an adult resource centre base.

Table 13 illustrates the gender, years of experience of working in learning disability services and follow-up periods for the group 1 and group 2.

Table 13: Gender, years of experience of working in learning disability services and follow up periods for Group 1 and Group 2 Staff

	Gender				Experience		Follow-Up					
	M		F				1		2		3	
Group 1	No.	Percent.	No.	Percent.	Mean	SD	No.	Percent.	No.	Percent.	No.	Percent.
Health	3	15	17	85	19.7	31.3	7	41	4	23	6	35
Residential	3	15	17	85	68.8	57.8	8	44	3	17	7	39
Day-care	7	37	12	63	124.4	82.1	12	63	5	26	2	11
Total	13	22	46	78	69.2	73.2	27	50	12	22	15	28
Group 2												
Health	4	14	24	86	119.7	85.4	13	46.4	9	32.2	6	21.4
Residential	9	36	16	64	72.6	50.8	18	72	6	34	1	4
Day-care	11	55	9	45	81.9	55.2	17	85	3	15	0	0
Total	24	33	49	67	92.5	69	48	66	18	25	7	9

No significant differences were found between group 1 and group 2 staff overall in relation to gender or for any of the sub-groups i.e. health, residential or day care staff. In relation to follow-up period, group 2 had significantly more participants who were assessed immediately following training ($X^2 = 7.310$, $df = 2$, $p < 0.05$) than group 1 staff. In relation to experience, no significant differences were found between group 1 and group 2 staff overall.

Procedure

All group 1 participants completed a questionnaire which examined levels of knowledge covered in studies 1,3 & 4 (See Appendix 2). The gender of the respondent, number of years of experience in learning disability services and, at follow-up, time since training were noted. The questionnaires were completed prior to a one day training course

provided by either an experienced clinical psychologist alone or with an experienced community learning disability charge nurse. The training course was entitled 'An introduction to challenging behaviour' and included the following components

- What is a learning disability
- What is duty of care
- What is challenging behaviour
- Defining, recording and assessing behaviours
- Reactive strategies
- Basic behavioural approaches
- Positive programming approaches

All the group 1 staff participating had expressed an interest in attending the course and were asked to complete the questionnaire at the beginning of the course. Following this group 1 participants were split into three groups as follows:

- 1: Immediate impact of training. This group were asked to complete the same questionnaire at the end of the training day, to assess the impact that the training had had on their knowledge in the short-term (n = 27/27, 100% response rate).
- 2: Three to six months after training. This group were contacted via the employing organisation who were asked to approach 2 staff teams randomly and ask them to complete the same questionnaire (n = 12/14, 86% response rate).
- 3: Six months to one year after training. This group were contacted in the same way as above and asked to complete the questionnaire, to assess the long term impact that the training may have had on staff knowledge (n = 15/18, 83% response rate).

Staff responses, while anonymous, were matched individually by staff team, gender, job title, years of experience spent working in learning disability services and hand-writing. In addition, those individuals who were followed up immediately were asked to make an individual mark e.g. triangle, star, on both of their questionnaires to aid matching. Five staff did not complete the questionnaire at follow-up (2 at 3-6 months after training, 3 at

6-12 months after training) giving response rates of 86% and 83% respectively. None of the staff in group 1 had participated in any of the previous studies in the thesis.

In addition, all group 1 staff members were asked to complete a training evaluation form at the end of the training day (See appendix 3). This assessed the quality and relevance of the training to participants. The social care staff were also required by their employing organisation to complete a separate training evaluation form which was scored and collated separately by the organisation and the results were fed back to the trainers (See Appendix 4).

A comparison of the results obtained with group 1 were compared with a control group of individuals (group 2) who had completed the initial questionnaires, who had expressed an interest in training but who had not yet received the one day training course. The questionnaire and method were identical to that for the group 1 staff who had received training. Group 2 participants consisted of residential staff ($n = 25$), day care staff ($n = 20$) and health staff ($n = 28$) giving a total sample size of 73. All those who were approached agreed to participate giving a 100% response rate. Those individuals in group 2 who indicated on their questionnaire that they had received some form of challenging behaviour training outwith that provided by the trainers, or who had previously participated in studies 1, 3 or 4 were excluded from group 2.

All participants were informed that participation was entirely voluntary, that responses were anonymous and confidential and that the results formed part of a research project.

Rather than following the same individuals up over time and comparing changes in their scores, the study compared the scores of different groups for each time period i.e. immediately after training, 3-6 months after training and 6-12 months after training. This has disadvantages in that it is not possible to examine changes in scores over time for the whole group. However, this methodology was adopted for a number of reasons. The

first two reasons related to the practicalities of asking the same staff members to complete the same questionnaire on four occasions. It is likely that the tolerance of busy staff would not extend to this and that this would have impacted negatively on response rates. Secondly, many social care organisations experience high levels of staff turn-over. A reliance on following each individual up over a period of a year may have meant that there was a large amount of missing data for those staff members who had left the service. The methodology adopted in study 5 meant that only those people who were still within the service could be chosen.

A final reason was to avoid the possibility that asking staff to complete the questionnaire on four different occasions may have led the staff responses to be influenced by their beliefs about what was required of them. There is a large body of literature that indicates that individuals use aspects of the interview and research context to try and determine what is required of them and that this can influence their responses (Gaskell et al., 1993).

Twenty responses from the group 1 staff (34%) were coded by two raters, to give an indication of inter-rater reliability. As with the previous studies, in all cases where parametric statistics were used it was ensured that the data distribution did not differ significantly from the normal distribution curve.

6.3 Results: Study 5

6.3.1 Study 5: The impact of training on staff knowledge

Study 5 compared the knowledge of staff who had received a one day training course (group1) with staff who had not received this training (group 2). Baseline refers to initial scores, follow-up refers to group 1 scores either immediately, 3-6 or 6-12 months after training, and to group 2 scores after an equivalent period.

Inter-rater reliability

Table 14 illustrates the level of significance for each factor in relation to inter-rater agreement, as assessed at both baseline and follow-up.

Table 14: Level of significance for each factor in relation to inter-rater reliability, assessed at baseline and follow-up.

Factor	Baseline Kappa	P<	Follow-up Kappa	P<
IQ	*		*	
ABS	1	0.01	*	
Childhood Onset	0.615	0.05	*	
Topography	1	0.01	1	0.01
Safety	1	0.01	1	0.01
Limited access to resources	1	0.01	1	0.01
Service has difficulty coping	1	0.01	0.8	0.05
Reactive strategies	1	0.01	1	0.01
Psychological principles	1	0.01	0.615	0.05
Positive Programming	1	0.01	0.737	0.05
Responsibility	1	0.01	*	
Accountability	1	0.01	0.8	0.01
Quality service	1	0.01	1	0.01
Safety	*		0.737	0.05
Safety of others	1	0.01	*	
Intervene against choice	0.783	0.05	0.8	0.1
Scenario 1-Duty of care	*		*	
Choice	0.783	0.05	0.615	0.05
Assessing choice	0.8	0.01	0.615	0.05
Assessing risk	0.783	0.05	*	
Scenario 2- Duty of care	*		*	
Choice	0.615	0.05	*	
Assessing Choice	0.737	0.05	*	
Assessing Risk	0.737	0.05	*	

* Kappa was not computed because at least one variable was a constant due to 100% agreement.

Table 14 illustrates that significant agreement was obtained between raters on all factors for which it was possible to compute Kappa, at both baseline and follow-up.

Comparison of group 1 and group 2 staff scores at baseline and follow-up

Table 15 below illustrates the factors for which a significant difference in scores was found between the group 1 and group 2 staff at baseline and follow-up.

Table 15: Factors for which a significant difference in scores was found between group 1 and group 2 staff at baseline and follow-up.

Group	Factor	Mean	SD	Value of T	Df	P<
Overall	Def.. of L.D.					
	1	1.43	0.89	-3.6	131	0.01
	2	2	0.91			
	Duty of care					
	1	1.47	1.17	-2.1	130	0.05
	2	1.95	1.42			
	Def.. of C.B.(follow-up)					
	1	1.47	0.93	2.36	116	0.05
	2	1.11	0.79			
	Duty of care (Follow-up)					
Health	1	2.47	1.23	2.14	131	0.05
	2	1.97	1.4			
	Def.. of L.D.					
	1	1.95	0.74	-2.7	47	0.01
	2	2.54	0.74			
	Scenario 2					
	1	2.95	1.28	-2.126	33.3	0.05
	2	3.64	0.87			
	Def.. of CB (Follow-up)					
	1	2.24	0.83	2.889	47	0.01
Residential	2	1.5	0.92			
	Scenario 1 (Follow-up)					
	1	3.8	0.51	0.612	42.86	0.05
	2	3.2	0.97			
	Def.. of L.D.					
	1	1.3	0.8	-2.037	43	0.05
	2	1.84	0.94			
	Scenario 2					
	1	1.9	1.3	-2.019	43	0.05
	2	2.7	1.4			
	Duty of care (Follow-up)					
	1	2.4	1.4	2.375	43	0.05
	2	1.6	1.1			

Impact of training on scores : Group 1

Table 16 below illustrates the mean scores and standard deviations at baseline and follow-up for all scores for which significant differences were found for group 1 after training.

Table 16: Mean scores and standard deviations for all scores on which significant differences were found for group 1 following training.

Factor	Before		After		Value	Df	Level of significance
	Mean	SD	Mean	SD	of T		
Understanding a learning disability	1.43	0.89	2.3	0.91	-6.834	59	p<0.001
Understanding of challenging behaviour	1.03	0.84	1.47	0.93	-4.375	59	p<0.001
Understanding of duty of care	1.47	1.18	2.51	1.19	-6.851	58	p<0.001
Scenario 1	2.19	1.21	2.83	1.21	-4.759	57	p<0.001
Scenario 2	2.57	1.48	3.21	1.35	-3.717	57	p<0.001

There was only one factor, factors identified in managing challenging behaviour, for which a significant increase in scores was not found at follow-up. No significant differences were found on any of the factors at follow-up for group 2 staff.

Years of experience working in learning disability services and scores

Group 1

A number of significant relationships were found between years of experience and scores as follows for group 1 staff:

A significant negative relationship was found between experience and definition of a learning disability scores at baseline ($r = -0.342$, $p < 0.005$) and between experience and scenario one scores at follow-up ($r = -0.272$, $p < 0.05$). Thus, the fewer the number of

years of experience of working in learning disability services the group 1 staff had, the greater their knowledge of what a learning disability was at baseline, and the greater their knowledge about choice and duty of care at follow-up.

Group 2

For group 2 staff a number of significant relationships were found between experience and scores as follows:

Significant positive relationships were found between experience and definition of a learning disability at baseline ($r = 0.425$, $p < 0.001$) and follow-up ($r = 0.444$, $p < 0.001$). Similarly, a positive relationship was found with management of challenging behaviour scores at baseline ($r = 0.293$, $p < 0.01$) and follow-up ($r = 0.26$, $p < 0.05$) and for definition of duty of care at baseline ($r = 0.554$, $p < 0.001$) and follow-up ($r = 0.488$, $p < 0.001$). Finally, a significant positive relationship was found between experience and scenario one scores at baseline ($r = 0.426$, $p < 0.001$) and follow-up ($r = 0.417$, $p < 0.001$).

This indicates that the greater the number of years of experience of working in learning disability services of group 2 staff, the greater their knowledge of defining a learning disability, managing challenging behaviour, defining duty of care and responding to scenario one, both at baseline and follow-up.

Differences in scores according to follow-up period ie. The impact of time since training on knowledge scores

Group 1

A one-way ANOVA found significant differences in the management of CB scores at baseline for group 1 when comparing the follow-up periods ($F = 6.217$, $df = 2; 51$, $p < 0.05$). A Tukey test illustrated that the score was significantly lower in the group which was followed up immediately after training ($m = 1$, $sd = 0.55$) as compared with the group followed up 6-12 months after training ($m = 1.667$, $sd = 0.62$). Similarly, a significant difference was found post training ($F = 4.449$, $df = 2; 51$, $p < 0.05$). A

Tukey test demonstrated that the score was significantly lower for group 1 individuals followed up immediately after training ($m = 1.11$, $sd = 0.58$) as compared with those followed up 6-12 months after training ($m = 1.67$, $sd = 0.62$). No significant differences were found for group 1 at baseline or follow-up on any of the other scores according to follow-up period.

Group 2

For group 2, a one-way ANOVA illustrated that significant differences existed in the management of CB scores when comparing the follow-up periods ($F = 4.392$, $df = 2$; 70 , $p < 0.05$). A Tukey test illustrated that significant differences existed between those group 2 staff followed up immediately ($m = 1.1$, $sd = 0.577$) and at 6-12 months following baseline ($m = 1.67$, $sd = 0.617$) and also between those followed up 3-6 months after baseline ($m = 1.5$, $sd = 0.67$) and 6-12 months after baseline.

Similarly, at follow-up a significant difference was found in relation to definition of CB scores ($F = 3.734$, $df = 2$; 70 , $p < 0.05$). A Tukey test showed that differences lay between those followed up immediately ($m = 1$, $sd = 0.55$) and 6-12 months after baseline ($m = 1.6$, $sd = 0.62$) and also between those followed up 3-6 months after baseline ($m = 1.5$, $sd = 0.674$) and 6-12 months after baseline.

Evaluation of training- trainer questionnaires

Table 17 illustrates group 1 staff responses to the training evaluation questionnaire items.

Table 17: Trained staff responses to trainer evaluation questionnaire items.

Question					
1. Was the course	Too long		Just right		Too short
	No.	Percent.	No.	Percent.	No. Percent.
	0	0	54	92	5 8
2. Were the topics	Very relevant		Quite relevant		Irrelevant
	No.	Percent.	No.	Percent.	No. Percent.
	52	88	7	12	0 0
3. Was the language	Too difficult		Just right		Too easy
	No.	Percent.	No.	Percent.	No. Percent.
	0	0	59	100	0 0
4. Were the activities	Very helpful		Quite helpful		Unhelpful
	No.	Percent.	No.	Percent.	No. Percent.
	45	76	14	24	0 0
5. Was the handout	Very useful		Quite useful		Useless
	No.	Percent.	No.	Percent.	No. Percent.
	43	84	8	16	0 0*
6. Was the presentation	Good		Quite good		Poor
	No.	Percent.	No.	Percent.	No. Percent.
	46	78	13	22	0 0
7. Which topics should be missed out?	None		Some		
	No.	Percent.	No.	Percent.	Examples
	57	97	2	3	'Jargon' 'Team ideas'
8. Which topics should be included?	None		Some		
	No.	Percent.	No.	Percent.	Examples
	50	85	9	15	'Restraint/staff attitudes/tone' 'Case-studies'/legal issues 'Non-verbal communication'
9. Which topics should we have more information on?	None		Some		
	No.	Percent.	No.	Percent.	Examples
	52	88	7	12	'De-escalation/profound l.d..' 'legal issues/available services'
10. Which topics should we have less information on?	None		Some		
	No.	Percent.	No.	Percent.	Examples
	58	98	1	2	'Theory'
11. Any other comments?	Positive		No. Percent. Examples		
	No.	Percent.	No.	Percent.	Examples
	22	37			'Very informative/very interesting/brilliant' 'Excellent course-everyone should have it before starting work' 'The presentation was very good because of presenters and material.' 'A very good course, good assortment of ideas'

* eight participants had not yet received it on completing the questionnaire

6.4 Discussion: Study 5

6.4.1 Study 5: The impact of training on staff knowledge

There is a demand for high quality, cost-effective services for people with a learning disability and an increasing reliance on both health professionals and direct care staff to deliver this. Previous research and the studies 1-4, suggests that the knowledge base of these groups may be inadequate and that this can have a negative impact on both clients and staff. Staff training has been highlighted as one means of improving staff knowledge and shaping staff attitudes (Allen et al., 1997), however, the effectiveness of such training has not been unequivocally established.

Study 5 examined the impact of a one day course covering a number of aspects of care relating to learning disabilities on health, social care and day care staff (group 1) as compared with a group who did not receive training (group 2). Ziarnik & Bernstein (1982) highlight the importance of assessing training both in terms of its subjective impact i.e. what staff report about its usefulness, validity, quality etc. and cognitive impact i.e. knowledge gain. In evaluating the subjective quality of the training, the training evaluation form suggested that the group 1 staff found the training to be enjoyable, understandable and of practical relevance to their work. Previous research has suggested that training must be tailored to the needs of the recipients if it is to be effective (Harper, 1994; Ward, 1987).

Of more practical relevance, however, is the cognitive impact of the training. The main finding here was that group 1 staff, who received the training, significantly increased their knowledge in relation to all of the factors measured, except those factors identified as important in managing challenging behaviour. Group 2, by contrast, showed no significant changes in their scores between baseline and follow-up. This indicated that training had a significant impact on knowledge, and potential practice as indicated by the written responses to the scenarios.

While it is initially puzzling that the training did not have a significant impact on group 1 staffs' knowledge about the factors important in managing challenging behaviour, this may be due to the way these factors were defined and how this area was presented on the course. The factors identified as important were initial reactive strategies, psychological approaches e.g. behavioural guidelines, functional analysis, and positive programming approaches e.g. skill teaching, anxiety management. During the course it was emphasised that staff should not undertake work that was outwith their remit. For example, day-care and social care staff should not write complex behavioural guidelines, while health staff should not undertake reactive strategies such as physical restraint if not trained to do so. It would therefore appear that, even after training, the staff continued to identify the area of managing challenging behaviour that they felt was within their remit and of relevance to themselves, rather than identifying all three of the areas which have been shown to be important. This suggests that future training must emphasise, that while certain factors may not be within the remit of a particular professional group, a comprehensive care plan must ensure that all three factors are taken into account.

No overall differences were found between group 1 and group 2 on gender or experience, however, at baseline group 2 were found to have significantly greater knowledge about the factors which define a learning disability and the factors relating to duty of care. At follow-up, group 1 were found overall to know significantly more about duty of care and defining challenging behaviour and had increased their knowledge about a learning disability to the extent that a significant difference no longer existed. This finding suggests that time-limited training is an effective means of overcoming differences in knowledge between staff members, as evidenced by the gains made by the trained group 1.

Researchers have highlighted the failure of some training courses to lead to long-term behavioural or attitudinal change in staff (Baker, 1998; Evans, 1990). In the present study, however, it was found that the impact of training on staff knowledge levels

appeared to be maintained for up to one year after training. This was indicated by the fact that the only significant difference found between the groups followed up immediately after, 3-6 and 6-12 months after training was that which had already existed at baseline. This again suggests that the knowledge obtained by staff from the training course did not fade over time and that expensive and time-consuming retraining would not be required for at least a year following the initial input. Another possibility, however, is that staff who were followed up at longer time intervals after training used other sources, such as reading or discussion with others to retain their knowledge. If this were the case, this would be positive in that it would suggest that the training gave them a knowledge base which they were motivated to maintain or build upon by means other than formal training.

For group 2 staff, those followed up after 6-12 months knew most at baseline. These differences were not maintained at follow-up. The results showed that the knowledge of the staff followed up immediately and 3-6 months after baseline had not improved, therefore the lack of significant differences at follow-up would appear to be due to the knowledge base of the 6-12 month group degrading over time.

The above results suggest that the knowledge gained by group 1 after training was not only maintained for up to one year after training, but also that for the group 2 staff the advantage that was present at baseline was lost over time. This suggests that training in some way contributes to the maintenance of knowledge. This may be for a number of reasons. The organisation may feel that the time and money spent on training should not be wasted and as a result may be more encouraging to staff who have received training than those who have not. It may also be that trained staff share experiences or attempt to put what they have learned into practice and as a result they retain the knowledge over time. Alternatively, the training may have sparked an interest in a topic which staff follow-up in their own time. It is not possible to pinpoint the reason for this finding from

the present study, however, future research into the factors behind knowledge maintenance would prove worthwhile.

Years of experience of working in learning disability services was found to be related to knowledge scores for both groups 1 and 2, although in opposite ways. For group 1, less experienced staff were found to have greater levels of knowledge regarding defining a learning disability, although this difference disappeared after training. However, less experienced staff were found to have higher levels of knowledge in relation to responses to scenario one after training. By contrast, the more experienced group 2 staff had greater levels of knowledge about defining a learning disability, managing challenging behaviour, defining duty of care and responses to scenario one, both at baseline and follow-up.

It is unclear why the relationships between knowledge and experience should differ for groups 1 and 2. One explanation is that group 2 has a significantly greater number of experienced health staff than group 1. Studies 1, 3 and 4 found health staff to have greater levels of knowledge than the other staff groups. It may be that the more experienced health staff in group 2 are causing the positive relationship between knowledge and experience for this group and not for group 1.

Cullen (2001) argues that any attempt to address poor service quality necessitates taking the many elements of a service and the context within which it operates into account. Likewise, for any training to be successful, it must take into account the context within which staff work and existing levels of knowledge. Study 5 has given some indication of the complex and varied factors, including profession and years of experience, which would appear to impact on staff knowledge and subsequent effects of training.

Study 5 can also be usefully placed within the context of a number of models which attempt to encompass the factors which may impact on staff performance. Reid et al.

(1989) and La Vigna et al. (1994) both place importance within their own models on the need to develop systems to determine if staff have the skills and knowledge base to adequately meet the requirements of their job. Both identify training as a means of ensuring staff have the core skills and knowledge to achieve the service goals competently. La Vigna et al. (1994), however, argue that training is necessary but not sufficient to increase service quality and that it can not be used in isolation from the context of the organisation and the conditions that staff work in. Hastings & Remington (1994) also highlight a number of additional factors which influence staff practice, including staff beliefs about the behaviour itself, why it occurs (attributions) and the way to intervene; the policies and procedures and reward schemes of the organisation and informal aspects of the service

While it is acknowledged that staff knowledge is only one factor which can potentially impact on staff practice, the results of the studies 1-4 suggest that at a very basic level staff employed to support clients with a learning disability lack knowledge about basic issues that are important to their care. Study 5 indicates that, in keeping with the models of staff practice outlined above, the training provided offered an appropriate and effective means of increasing the knowledge base of staff.

The models outlined, however, also warn that for knowledge gains to result in improved staff practices, the organisation needs to have additional mechanisms in place. These will include clearly defined roles and expectations for staff, a means of monitoring staff and organisational performance, supporting and rewarding good staff performance and the existence of systems to ensure that other factors e.g. attributions, lack of resources, informal staff climate, do not contribute to the maintenance of poor performance.

6.5 Limitations of study 5

While it is clear that a number of factors impact on staff practice, the present thesis had as its focus an examination of the levels of knowledge about some of the factors which have been shown by previous researchers to be important in providing an effective service to individuals with a learning disability. The thesis illustrated that, overall, levels of knowledge were low in both health and social care staff. While the results of study 5 indicate that the training had a significant impact on the knowledge levels of those receiving training, it could be argued that the trained group were not representative and that the training effects would not therefore generalise to other groups. The results of study 5 do, however, suggest that the pattern of knowledge of both the staff who received training and those who did not was similar to that found in studies 1 to 4. Overall, the health staff had greater levels of knowledge about all aspects of a learning disability than social care staff. This similarity, found by the separate studies of the thesis, would suggest that the staff participating in study 5 were representative of the wider group of health and social care staff. It may therefore be argued that the effects of training would be expected to generalise to the wider staff group.

Study 5, does, however have other limitations. The study utilised questionnaires and some of the limitations of this in relation to the whole thesis are outlined in more detail below. However, as with other questionnaire based studies it can not be assumed that significant changes in staff knowledge will lead to positive changes in staff approaches to supporting people with a learning disability. Indeed previous research has found that even when training results in significant gains in staff knowledge, this does not always equate with changes in staff practice (Jenkins et al., 1998). A lack of knowledge about the client group and particularly in relation to challenging behaviour, has been found to effect staff practices (Hasting & Remington, 1994). However, other factors may be equally important, including motivation, attitudes, attributions and staff support systems (Fitzsimmons & Barr, 1997; Harper, 1994; Hastings, 1997).

In addition, while study 5 showed significant increases in staff knowledge, there is no absolute level of knowledge which guarantees that staff now know enough. Individuals with a learning disability have a variety of strengths and needs and staff knowledge must be applied creatively and flexibly to harness these strengths and meet these needs. At the very least, however, study 5 does suggest that training can significantly increase the knowledge base that staff have to draw on to assist in achieving this.

A further potential methodological limitation of study 5, in relation to examining the impact of training on knowledge over time, is that, rather than following the same individuals up over time and comparing changes in their scores, the study compared the scores of different groups for each time period i.e. immediately after training, 3-6 months after training and 6-12 months after training. This has disadvantages in that it is not possible to examine changes in scores over time for each individual within the whole group. However, the methodology used in study 5 was adopted for a number of reasons. The first two reasons related to the practicalities of asking the same staff members to complete the same questionnaire on four occasions. It is likely that the tolerance of busy staff would not extend to this and that this would have impacted negatively on response rates. Indeed, response rates dropped from 100% for those followed up immediately after training to 86% at 3-6 months and 83% at 6-12 months, even when staff were only being asked to complete the questionnaire twice. Secondly, many social care organisations experience high levels of staff turn-over. A reliance on following each individual up over a period of a year may have meant that there was a large amount of missing data for those staff members who had left the service. The methodology adopted in study 5 meant that, although staff teams were chosen randomly by the employing organisation, only those people who were still within the service could be chosen. A final reason for choosing the methodology adopted in study 5 was to avoid the possibility that asking staff to complete the questionnaire on four different occasions may have led the staff responses to be influenced by their beliefs about what was required of

them. There is a large body of literature that indicates that individuals use aspects of the interview and research context to try and determine what is required of them and that this can influence their responses (Gaskell et al., 1993).

Despite these limitations, the study 5 suggests that a one day training course can have a significant impact on the knowledge and potential practice of health, social care and day care staff, in areas where the previous studies had found staff knowledge to be limited. In addition, this knowledge would appear to be retained for at least one year after training. Previous researchers have indicated that training is not always cost-effective (Ziarnik & Bernstein, 1982). Given the expense of both providing training and releasing staff to attend, it is encouraging that the time limited training presented in study 5 can result in significant gains in staff knowledge which are retained over a relatively long period of time. However, a more detailed discussion of the methodological limitations of the thesis as a whole is given below.

6.6 Methodological limitations of the thesis

The aim of the present research thesis was to examine the level of knowledge of staff working with people with a learning disability about basic concepts which impact on their care. The thesis showed that, in general, levels of knowledge were lower than would be hoped in a staff group employed to work with this client group. The research also aimed to examine if undertaking a one day training course could have a significant impact on staff knowledge. This was in fact found to be the case, with all three staff groups appearing to benefit from the training in terms of increased knowledge. The time since training did not appear to impact adversely on these results, with no significant differences being found between the groups assessed immediately after training as compared with 3-6 or 6-12 months after training, except those that existed at baseline. While these results are encouraging, the thesis does have a number of limitations, which were outlined briefly in relation to each individual study and which will be discussed in more detail below.

6.6.1 Limitations of questionnaires

The study was predominantly based on staff replies to questionnaires. This had two aspects: an examination of staffs' factual knowledge and an evaluation of their responses to clinically based scenarios. Dickens & Stallard (1987) suggest that any questionnaire must conform to the following standards:

- a) Objectivity i.e. be as unbiased by personal opinions and feelings as possible.
- b) Reliability i.e. produce consistent results across time, situations and scorers.
- c) Validity i.e. the assessment should assess what it purports to.
- d) Social validity i.e. the measure must cover areas important to a local reference group.

Objectivity

In relation to objectivity, the questionnaire was scored in terms of factors identified in the literature as relevant to the item in question. For example, the definition of a learning disability was based on internationally identified and agreed criteria, while the defining characteristics of challenging behaviour were drawn from an extensive literature search and frequently cited definitions (e.g. Emerson et.al., 1988). While this established the objectivity of the questionnaires to some extent, the way in which responses were scored were still open to some personal interpretation. To reduce potential bias, clear scoring criteria were established and a measure of inter-rater reliability was taken for all of the questionnaire items.

Reliability

While the inter-rater reliability of the questionnaire was examined and found to be acceptable, factors such as test-retest reliability were not examined. This was for a number of practical reasons. For some staff groups, in particular GPs, the response rate was relatively low, and the questionnaire was distributed by post. It would therefore have been unlikely that a large enough sample would have been willing to complete the questionnaire a second time. A further difficulty was that the thesis had as one of its

aims an examination of the impact of time on the retention of knowledge. To have established test-retest reliability of the questionnaire would have required participants to complete the questionnaire on three occasions. It is unlikely that busy staff would have been willing to do so.

However, the failure to examine this aspect of the questionnaire raises the possibility that increases or decreases in knowledge scores were due to the unreliability of the test.

However, the results of the thesis were in the predicted direction i.e. trained staff had significant increases in scores following training, while untrained staff remained the same.

It would be unlikely that the scores of one group would remain stable, indicating test reliability while the scores of another group increased due to test unreliability. This factor cannot, however, be completely discounted

Validity

The validity of any measure can be established in a number of ways, the simplest being content validity. This arises from a subjective judgement that the items are representative of the content area. It is therefore likely that a questionnaire designed to tap knowledge of a learning disability will have content validity if it asks 'What is your understanding of the term learning disability?' Another related measure is face validity i.e. does it appear to measure what it is supposed to. The questionnaires did appear to have face validity, in that they were understood and correctly completed by staff.

A further form of validity is criterion referenced validity. This can be measured by the extent to which the scores obtained on one measure agree with those obtained on another which is believed to measure the same thing. Unfortunately, for the present thesis, there were few studies which directly examined the concepts of interest. Some support for criterion validity did however come from the fact, that, in general the results of the thesis were consistent with previous research that indicated that certain aspects of knowledge

was low in those staff who worked with clients with a learning disability (Hastings, 1996; Lyall et al., 1995; Kerr et al., 1996).

However, of more relevance is construct validity. The questionnaires were not subjected to a vigorous examination of their construct validity. It is therefore unclear if factors such as the wording of questions, the layout and presentation of the questionnaires or the scenarios chosen impacted on staff responses. There is a large body of evidence that apparently trivial changes in the wording or structure of questionnaires can cause variability in responses (Gaskell et al., 1993). The questionnaires used, however, attempt to avoid three main areas which have been shown to effect responses. The first is the provision of response alternatives, which have been shown to effect the response depending on whether the respondent uses information to infer either the meaning of the question or their position in relation to others (Gaskell et al., 1993). The questionnaires used in the present thesis were generally open-ended e.g. 'What is your understanding of....?' 'How would you deal with this situation?' and therefore avoided using response alternatives. A second factor that can impact on responses is the use of intensifiers in questions e.g. very, really. The thesis avoided the use of such words. Finally, if respondents are asked to remember a past behaviour, particularly if it is low frequency, difficulties in estimating can lead to unreliability (Gaskell et al., 1993). The thesis again focused on respondents current knowledge rather than previous behaviours.

A further difficulty with the questionnaires were that they mainly dealt with knowledge. In such cases respondents can use other sources such as books, handouts or other people to answer the questions (McColl et al., 1993). This was not possible for any of the group in the first four studies, with the exception of the GPs, as the replies were either written in the presence of the researcher or written down verbatim by her. This is also true for the baseline assessments for participants in study five. However, as the follow-up questionnaires were posted out to people (with the exception of those followed up immediately after baseline), it is possible that these groups could have used other sources

of information. If this were the case, however, it would have been expected that both the trained and untrained staff would have used this strategy in a similar way. In fact it was only the knowledge of the trained group that was found to increase significantly, while the levels of knowledge of the untrained staff remained the same. This possibility, however, can not be completely discounted.

Another difficulty with questionnaires is that of articulation. Some people express themselves better than others or differ in how they formulate written responses (McColl et al., 1993). However, respondents had the choice of whether they gave written replies or told the researcher who recorded replies verbatim. It is assumed that people chose the method which they felt most comfortable with and which they felt would most clearly express their views.

Finally, while the questionnaires were likely to tap individuals' knowledge, as they would be unlikely to withhold such information, their expressed course of action may not reflect either their private attitudes (Aronson, 1995) or their actual behaviour (Ajzen & Fishbein, 1980).

Social validity

This refers to the fact that the questionnaire must measure constructs which are of relevance to the group being assessed. The questionnaires had social validity to the extent that they dealt with concepts which are central to working with clients with a learning disability, and were given to participants who had the remit of working with clients with a learning disability. However, some of the items may have had more or less relevance for some staff groups. For example, staff who supported clients with physical disabilities may have been less concerned with challenging behaviour and more concerned with mobility and stimulation. As such the questionnaires may have held less social validity for them.

6.6.2 Statistical limitations

6.6.3 Sample size

Another important factor in any research project is the number of people participating. All of the studies had a total sample size of at least 34, with the largest sample size being 163. In addition, the smallest sample size of the sub-groups in all of the studies was 19 and the largest was 72. However, studies 1, 3 and 4 had sample sizes that varied for the two groups being studied. This factor can also influence the statistical power of the studies and the likelihood of achieving statistically significant results. While it would have been preferable to have a larger sample size for some of the sub-groups and equal sample sizes in studies 1, 3 and 4, to increase the statistical power of the studies (Cohen, 1992), this was limited by practical factors. Many staff working with clients with a learning disability are busy and may be reluctant to accept extra demands on their time. In addition, because the thesis involved a number of questionnaires, this limited the number of staff available who had not already participated in some aspect of the thesis. Despite this, a number of significant results were found, in the predicted direction. This indicated that the studies had a sufficient statistical power.

6.6.4 Multiple testing

In study 5 multiple comparisons were carried out on sets of data obtained from the one population e.g. to compare the differences in knowledge levels at baseline and follow-up for health and residential staff and for the whole group. The main difficulty with utilising multiple comparisons is that the possibility of making a Type I error increases i.e. rejecting the null hypothesis when it is in fact true. While some authors argue that it is not necessary to correct for the increased per comparison error rate when the comparisons are planned (e.g. Keppel, 1991), the strength of the statistical analysis of study 5 would have been increased by carrying out the Bonferroni test which corrects for the per comparison error rate.

6.6.5 The use of parametric statistics

The current thesis utilised a number of parametric statistical tests. In general, parametric tests are used when a number of assumptions about the data are met. These are: that the data are measured on an interval or ratio scale; that the scores are normally distributed and the variability of the scores for each condition should be approximately the same. Some authors argue that it is inappropriate to use parametric tests except when all three conditions have been met (Bradley, 1968). To the extent that this is accepted, it could be argued that the results obtained in the thesis by using parametric tests with ordinal data are invalid. This occurred when participants were assigned a 'knowledge' score depending on how many of the criteria or factors relating to a concepts they identified.

Many other authors, however, argue that parametric tests are sufficiently robust that they can be used appropriately, even when the conditions outlined above are violated (Howell, 1997; Greene & d'Oliveira, 1982; Cramer, 1998). It has been argued that parametric tests can be used with ordinal data, as the tests are applied to the numbers themselves rather than what they relate to (Cramer, 1998). In addition, research has indicated that there is little impact on the outcome of parametric tests even when the distribution of the data has not conformed to the normal distribution or when there has been unequal variance (Boneau, 1960; Games & Lucas, 1966). There has not, as yet, been a definitive outcome to the debate. Parametric tests were, therefore, used in some cases during the thesis, because they are generally considered to be more powerful i.e. they are more likely to be significant when there is a relationship between two variables (Cramer, 1998).

6.6.6. The impact of knowledge on staff practice

The thesis focused on levels of staff knowledge and the impact of training on these. It has been acknowledged throughout the thesis, however, that knowledge is only one factor of many which can impact on staff practice (Cullen, 2001; La Vigna et al., 1994; Hastings &

Remington, 1994; Reid et al., 1989) and that changes in staff knowledge do not necessarily translate into changes in staff practice (Jenkins, 1998; Ziarnik & Bernstein, 1982). A major limitation of the thesis, is therefore, that it did not examine the impact of either staff knowledge levels or the training course on practice. This was not an aim of the thesis for the following reasons. To examine staff practice would have raised a number of ethical issues for the participants and employing authorities. One obvious example is the question of whether participant anonymity and confidentiality could be maintained if bad or dangerous practice was discovered during the research. Such ethical issues may have led staff and organisations to decline to participate in a project which examined staff practice. A second reason was that staff performance is effected by a number of factors, many of which would have been outwith the control of the author e.g. organisational climate, reward systems for staff, informal staff systems. There are also a number of dangers inherent in developing inadequate systems for specifying, monitoring and evaluating staff performance which do not allow for staff ownership of their behaviour (Cullen, 1998). It would not have been practically possible for the author to adequately address and account for all of these factors within the time and resource constraints of her clinical post. The thesis, therefore, did not attempt to do so. However, this is an obvious and important area for future work.

6.7 Recommendations for future research

It has been acknowledged throughout the thesis that a number of factors impact on staff performance and the researcher interested in this topic is offered a seemingly endless number of topics and factors which would merit further investigation. While the thesis focused on levels of staff knowledge and the impact training had on these, it failed to examine the impact either levels of knowledge or staff training had on practice, as is discussed above. These topics offer two obvious areas for future research. The author is currently working with colleagues, using 'The Periodic Service Review' model developed by La Vigna et al. (1994) to examine what impact, if any, staff training has on practice.

It is clear that the role of staff attributions is potentially a central one in shaping staff practice and again the author is working with colleagues to examine if the training outlined in the thesis changes staff attributions. A further research question would be to examine which type of training would be most effective in changing staff practice, traditional training which targets staff knowledge and skills or training that specifically targeted attributions.

6.8 Conclusion

The present thesis has attempted to establish levels of knowledge about certain important factors related to the field of learning disabilities in staff groups involved in their care. Despite the limitations of questionnaire based studies outlined above, the thesis found that knowledge was generally lower than would have been hoped in all of the staff groups studied. Health staff were generally found to have the highest levels of knowledge and this was attributed to their more specialised role and training. The thesis also attempted to determine if a one day training course could impact on staff knowledge levels and their reported practice, as measured by written responses to scenarios.

Training was found to lead to significant increases in knowledge in the trained group, with the exception of knowledge about the factors that are important in managing challenging behaviour. Staff appeared to report only the strategies which they felt were within their remit. These increases in knowledge appeared to be maintained for up to one year after training. No significant increases in knowledge were found in the untrained staff (group 2). This suggests that a short one day training course may be a viable way to increase staff knowledge in health, day care and residential staff.

References

- Abraham, C., Lindsay, W.R. & Lawrenson, H. (1991). The role of 'carers' of people with mental handicaps: An observational study across contexts. Mental Handicap Research, 4, 20 - 40.
- Ajzen, I and Fishbein, M. (1980). Understanding Attitudes and Predicting Social Behaviour. Prentice Hall.
- Allen, D. (1994). Towards meaningful daytime activity. In Emerson, E., McGill, P. & Mansell, J. (Eds.) Learning Disabilities and Challenging Behaviours: Designing High Quality Services. Chapman & Hall; London.
- Allen, P., Pahl, J. and Quine, L. (1990). Care Staff in Transition: the Impact on Staff of Changing Services for People with Mental Handicap. HMSO, London.
- Allen, D., McDonald, L., Dunn, C. & Doyle, T. (1997). Changing care staff approaches to the prevention and management of aggressive behaviour in a residential treatment unit for persons with mental retardation and challenging behaviour. Research in Developmental Disabilities, 18(2), 101 - 112.
- American Association on Mental Retardation (1992). Mental Retardation: Definition, Classification and Systems of Support. Washington :American Association on Mental Retardation
- American Psychiatric Association (1995). Diagnostic and Statistical Manual of mental disorders. Fourth Ed. A.P.A. Washington D.C., USA.

Aminidav, C. & Weller, L. (1995). Effects of country of origin, sex, religiosity and social class on breadth of knowledge of retardation. British Journal of Developmental Disabilities. 41(80), 48-56.

Antonak, R.F., Fiedler, C.R. & Mulick, J.A. (1989). Misconceptions relating to mental retardation. Mental Retardation. 27(2), 91-97.

Aronson, J. (1985). in Lyndzey, M. and Aronson, J. (Eds.). Handbook of Social Psychology. London: Wiley.

Ashton, G.R. & Ward, A.D. (1992). Mental Handicap and the Law. London: Sweet & Maxwell.

Babbie, E.R. (1979). The Practice of Social Research. Wadsworth: California.

Baker, D.J. (1998). Effects of video-based staff training with manager led exercises in residential support. Mental Retardation. 36(3), 198-204.

Barr, O. (1995). Normalisation: What it means in practice. British Journal of Nursing. 4(2), 90-94.

Berryman, J., Evans, I.M. & Kalbag, A. (1994). The effects of training in non-aversive behaviour management on the attitudes and understanding of direct care staff. Journal of Behaviour Therapy and Experimental Psychiatry. 25(3), 241-250.

Boneau, C.A. (1960). The effects of violations of assumptions underlying the t test. Psychological Bulletin. 57: 49-64.

Bradley, J.V. (1968). Distribution free statistical tests. Englewood Cliffs, NJ: Prentice-Hall.

Bromley, J. & Emerson, E. (1995). Beliefs and emotional reactions of care staff working with people with challenging behaviour. Journal of Intellectual Disability Research. 39, 341-352.

Brown, S. & Wistow, G. (1990). The roles and tasks of CMHT's. Aldershot: Avebury.

Brown, S. & Griffiths, T. (1990). A register of CMHTs. University of Loughborough.; CRSP.

Brown, H., Hunt, N. and Stein, J. (1994). Alarming but Very Necessary: Working with Staff Groups around the Sexual Abuse of Adults with Learning Disabilities. Journal of Intellectual Disability Research, 38 (4), 393-412.

Burton, M. (1997). Intellectual Disability: developing a definition. Journal of Learning Disabilities for Nursing, Health & Social Care. 1(1), 37-43.

Caine, A., Hatton, C. & Emerson, C. (1998). Service Provision. In Emerson, E., Hatton, C., Bromley, J. & Caine, A. (Eds.) Clinical Psychology and People with Intellectual Disabilities. Wiley & Sons, Chichester.

Care Sector Consortium (1992). National Occupational Standards for Care. London: HMSO.

Cheseldine, S. & Stansfield, J. (1993). Gentle teaching: A guide for carers. University of Strathclyde. Scotland.

Clegg, J.A. (1993). Putting people first: A social constructionist approach to learning disability. British Journal of Clinical Psychology. 32, 389-406.

Cohen, J. (1992). A power primer. Psychological Bulletin. 112(1), 155-159.

Craft, A. & Craft, M. (1983). Sex education and counselling for mentally handicapped people. Tunbridge Wells: Costello.

Cramer, D. (1998). Fundamental Statistics for Social Research. Routledge: London.

Cullen, C. (1998). The trouble with rules: behaviour analysis in work and therapy. The Psychologist. 11, 471-475.

Cullen, C. (2001). A review of some important issues in research and services for people with learning disabilities and challenging behaviour. Scottish Executive Review of Services for People with a Learning Disability: Edinburgh.

deKock, U., Felce, D., Saxby, H. & Thomas, M. (1987). Staff turnover in a small home service. Mental Handicap. 15(3), 97-101.

Department of Health (1990). NHS and Community Care Act. HMSO: London.

Department of Health (1993). Services for people with learning disabilities and challenging behaviours or mental health needs. Report of the project group. HMSO, London.

Department of Health (1989). Caring for People. Community care in the next decade and beyond. Government White Paper (CM555). HMSO, London.

Department of Health (1995). The Health of the Nation - a strategy for people with learning disabilities. HMSO, London.

DHSS (1971). Better Services for the Mentally Handicapped. HMSO, London.

DHSS (1986). A review of neighbourhood nursing. Cumberledge Report. HMSO, London.

DHSS (1979). Report of the Committee of Enquiry into Mental Handicap Nursing Care. Jay Report (CMND 7468). HMSO, London.

Dickens, P. & Stallard, A. (1987). Assessing Mentally Handicapped People: A Guide for Care Staff. NFER-Nelson: Berkshire.

Donnellan, A La Vigna, G, Shoultz, N & Fassbender, L. (1988). Progress Without Punishment. Teachers College Press. London.

Emerson, E., Cummings, R., Barret, S., Hughes, H., McCool, C. & Toogood, A. (1988). Challenging behaviour and community services 2: Who are the people who challenge services? Mental Handicap. 16, 16-19.

Emerson, E. Robertson, J., Gregory, N., Hatton, C., Kessissoglou, S., Hallam, A. & Hillery, J. (2000). Treatment and management of challenging behaviours in residential settings. Journal of Applied Research in Intellectual Disabilities. 13, 197-215.

Emerson, E. (1995). Challenging Behaviour: Analysis and Intervention in People with Learning Disabilities. Cambridge: Cambridge University Press.

Emerson, E. (1998). Working with people with challenging behaviour. In Emerson, E., Hatton, C., Bromley, J. & Caine, A. (Eds.) Clinical Psychology and People with Intellectual Disabilities. Chichester: John Wiley & Sons.

Evans, I.M. (1990). Teaching personnel to use state of the art non-aversive alternatives for dealing with problem behaviour. In A.P. Kaiser & C.M. McWhorter (eds). Preparing Personnel to Work with Persons with Severe Disabilities. Baltimore M.D: Paul H. Brookes.

Felce, D. & Repp, A. (1992). The behavioural and social ecology of community houses. Research in Developmental Disabilities, 13, 27 - 42.

Fitzsimmons, J & Barr, O. (1997). A review of the reported attitudes of health and social care professionals towards people with learning disabilities: implications for education and further research. Journal of Learning Disabilities for Nursing, Health and Social Care, 1(2), 57 - 64.

Games, P. & Lucas, P. (1966). Power of the analysis of variance of independent groups on non-normal and normally transformed data. Educational and Psychological Measurement. 26: 311-327.

Gaskell, G., Wright, D. & O'Muircheartaigh, C. (1993). Reliability of surveys. The Psychologist. 500-503.

Gates, B. (1997). What is a learning disability: A question of semantics or political correctness. Journal of Learning Disabilities for Nursing, Health and Social Care. 1(2), 51-52.

Gilbert, T. (1993). Learning disability nursing: From normalisation to materialism-towards a new paradigm. Journal of Advanced Nursing. 18(5), 1604-1609.

Greene, J. & d'Oliveira, M. (1982). Learning to use statistical tests in psychology: A student's guide. Milton Keynes: The Open University Press.

Greig, R. & Peck, E. (1998). Is there a future for the community learning disability team? Tizard Learning Disability Review. 3(1), 35-41.

Gunn, M.J. (1991). Sex and the law: A brief guide for staff working with people with learning difficulties (3rd Edition) London: Family Planning Association.

Hames, A. (1996). The effects of experience and sexual abuse training on the attitudes of learning disability staff. Journal of Intellectual Disability Research, 40 (6), 34-43.

Harper, D.J. (1994). Evaluating a training package for staff working with people with learning disabilities prior to hospital closure. The British Journal of Developmental Disabilities, vol. XL (1), 45-53.

Harris, P. (1993). The nature and extent of aggressive behaviour amongst people with learning difficulties (mental handicap) in a single health district. Journal of Intellectual Disability Research. 37(3), 221-224.

Hastings, R.P. (1995). Understanding factors that influence staff responses to challenging behaviours: An exploratory interview study. Mental Handicap Research. 8, 296-320.

Hastings, R.P. (1996). Staff strategies and explanations for intervening with challenging behaviours. Journal of Intellectual Disability Research. 40(2), 166-175.

Hastings, R.P. and Remington, B. (1994). Staff behaviour and its implications for people with learning disabilities and challenging behaviours. British Journal of Clinical Psychology, 33, 423-38.

Hastings, R. & Remington, B. (1994). Staff behaviour and challenging behaviour: A reply to Clegg's commentary. British Journal of Clinical Psychology, 33, 445 - 450.

Hastings, R.P., Sonuga-Barke, E.J. & Remington, B. (1993). An analysis of labels for people with learning disabilities. British Journal of Clinical Psychology, 32, 463-465.

Hastings, R & Remington, B. (1994). Rules of engagement: Towards an analysis of staff responses to challenging behaviour. Research in Developmental Disabilities, 15, 279 - 298.

Hastings, R.P., Remington, B. & Hopper, G.M. (1995). Experienced and inexperienced health care workers beliefs about challenging behaviours. Journal of Intellectual Disability Research, 39(6), 22-34.

Hastings, R.P., Reed, T.S. & Watts, M.J. (1997). Community staff causal attributions about challenging behaviour in people with intellectual disabilities. Journal of Applied Research in Intellectual Disabilities, 10(3), 238-249.

Hemming, H., Lavender, T. & Pill, R. (1981). Quality of life of mentally retarded adults transferred from large institutions to new small units. American Journal of Mental Deficiency, 86, 157 - 169.

Henry, D., Keys, C., Balcazar, F. and Jopp, D. (1996). Attitudes of Community - Living Staff Members Towards Persons with Mental Retardation, Mental Illness and Dual Diagnosis. Mental Retardation, 34 (6), 13-19.

Hile, M.G. & Walbran, B.B. (1991). Observing staff-resident interactions: What staff do- what residents receive. Mental Retardation. 29, 35-41.

Hill, B.K. & Bruininks, R.H. (1984). Maladaptive behaviour of mentally retarded individuals in residential facilities. American Journal of Mental Deficiency. 88, 380-387.

Hogg, J. & Mittler, P. (1987). Staff Training in Mental Handicap. London: Croom Helm.

Howell, D.C. (1997). Statistical Methods for Psychology (4th Ed.). Duxbury: Belmont, C.A.

Howells, G. (1986). Are the medical needs of mentally handicapped adults being met? Journal of the Royal College of General Practitioners. 36, 449-453.

Jackson, N. & Jackson, E. (1998). Choice-making for people with a learning disability. Learning Disability Practice. 1(3), 22-25.

Jenkins, C., Baxter, L., Dowton, J., Gibbs, C. & Partridge, J. (1998). When staff training isn't enough: an evaluation of a collaborative approach. International Journal of Language and Communication Disorders. 33, 409-414.

Jenkinson, J., Copeland, C., Drivas, V., Scoon, H. & Yap, M.L. (1992). Decision-making by community residents with an intellectual disability. Australia and New Zealand Journal of Developmental Disabilities. 18(1), 1-8.

Johnstone, S. (1988). Guidelines for social workers on coping with violent clients. British Journal of Social Work. 18: 377-390.

- Kelly, M.S. & Gottesman, R.L. (1997). Adults with severe reading and learning difficulties: a challenge for the family physician. Journal of the American Board of Family Practice. 10(3), 199-205.
- Keppel, G. (1991). Design and analysis: A researcher's handbook. Englewood Cliffs, NJ: Prentice-Hall.
- Kerr, M., Dunstan, F. & Thabar, A. (1996). Attitudes of general practitioners to caring for people with a learning disability. British Journal of General Practice, 46 (403), 92-94.
- Keshavan, K., Sriram, T.G., Kaliaperumal, V.G. & Subramanya, K.R. (1991). Mental health knowledge and skills of general hospital nursing staff: An exploratory study. International Journal of Social Psychiatry. 37(4), 280-284.
- Kiernan, C. & Querishi, H. (1993). Challenging behaviour. In Kiernan, C. (Ed.) Research to Practice? Implications of Research on the Challenging Behaviour of People with Learning Disabilities. Kidderminster: British Institute of Learning Disabilities.
- Knapp, M., Cambridge, P. & Thomason, C. (1989). Final report of the evaluation of the care in the community initiative. Kent: PSSRU.
- Kobe, F.H. & Mulick, J.A. (1995). Attitudes towards mental retardation and eugenics: The role of formal education and experience. Journal of Developmental and Physical Disabilities. 7(1), 1-9.
- Landesman-Dwyer, S. & Knowles, M. (1987). Ecological analysis of staff training in residential settings. In Hogg, J. & Mittler, P. (eds.) Staff Training in Mental Handicap. Croom Helm: London.

Lancioni, G., O'Reilly, M. & Emerson, E. (1996). A review of choice research with people with severe and profound developmental disabilities. Research in developmental Disabilities 17(5), 391-411.

Langan, J. (1994). Paid and unpaid carers: their role in, and satisfaction with, primary health care for people with learning disabilities. Health & Social Care, 2, 357-365.

La Vigna, G.W. and Donnellan, A.M. (1986). Alternatives to Punishment: Solving Behaviour Problems with Non-Aversive Strategies. New York, Irvington.

La Vigna, G.W., Willis, T.J., Shaul, J.F., Abedi, M. & Sweitzer, M. (1994). The Periodic Service Review: A Total Quality Assurance System for Human Services and Education. Paul H. Brookes Publishing: Baltimore.

Lawrie, K. (1995). Better health care for people with learning disabilities. Nursing Times, 91, 32-34.

Lennox, N.G., Diggins, J.N. & Ugoni, A.M. (1997). The general practice care of people with intellectual disability: barriers and solutions. Journal of Intellectual Disability Research. 41(5), 380-390.

Lindsay, W.R. (2001). Behavioural disturbance. In Hamilton-Kirkwood (Ed.) Health Evidence Bulletins Wales: Learning Disabilities (Intellectual Disability). Cardiff: National Assembly for Wales.

Lyall, I., Holland, A & Collins, S. (1995). Offending by Adults with Learning Disabilities and the Attitudes of Staff to Offending Behaviour. Journal of Intellectual Disability Research. 39(6), 22 - 31.

Madhavam, T., Menon, D.K., Kumari, R.S., Kalyan, M. (1990). Mental Retardation Awareness in the Community. Indian Journal of Disability and Rehabilitation, Vol. 4(1), 9-21.

Mansell, J. (1989). Evaluation of training in the development of staffed housing for people with mental handicaps. Mental Handicap Research, 2(2), 137-151.

Mansell, J & Beasley, F. (1990). Severe mental handicap and problem behaviour: Evaluating transfer from institutions to community care. In W.I. Fraser (Ed.), Key Issues in Mental Retardation Research. London: Routledge.

Mansell, J. & Beasley, F. (1993). Small staffed houses for people with a severe learning disability and challenging behaviour. Special Issue: Community Care. British Journal of Social Work, 23(4), 89-93.

Martin, B.A. (1997). Primary Care of Adults with Mental Retardation living in the community. American Family Physician. 56(2), 485-494.

Martin, D.M., Roy, A. & Wells, M.B. (1997). Health Gain through Health Checks: improving access to primary health care for people with intellectual disability. Journal of Intellectual Disability Research. 41(5), 401-408.

May, D., Miller, J., Linton, P. et al. (1994). Changing attitudes: A teaching initiative in the medical school. British Journal of Learning Disabilities. 22(2), 104-108.

McCabe, M.B. (1993). Sex Education Programmes for People with Mental Retardation. Mental Retardation, 31(6), 377-387.

McCarthy, M. and Thompson, D. (1997). A Prevalence Study of Adults with Intellectual Disabilities Referred for Sex Education. Journal of Applied Research in Intellectual Disabilities, 10 (23), 105-124.

McColl, E. (1993). Questionnaire design and construction. Nurse Researcher. 1(2), 16-25.

McGee, J., Menolascino, F.J., Hobbs, D.C. and Menousek, P.E. (1987). Gentle Teaching: A Non-Aversive Approach to Helping Persons with Mental Retardation. New York: Human Sciences Press.

McGill, P. & Mansell, J. (1995). Community placements for people with severe and profound learning disabilities and serious challenging behaviour. Journal of Mental Health (UK). 4(2), 183-198.

McGowan, C. (1996). A Long Way From Home. Health Service Journal, April 28-30.

McKay, C. (1991). Sex, Laws and Red Tape: Scots Law, Personal Relationships and People with Learning Disabilities. Scottish Society for the Mentally Handicapped. Glasgow. Scotland.

McKenzie, K., Paxton, D., Murray, G.C. & Matheson, E. (2000). Professional composition of community learning disability teams in Scotland: Implications for service provision. Health Bulletin . 58(3), 192-197.

McKenzie, K., Murray, G.C. & Matheson, E. (2000). The role of clinical psychology in responding to challenging behaviour referrals. Clinical Psychology Forum. 136, 8-13.

McKenzie, K. Murray, G.C., Higgon, J. & Matheson, E. (1999). Knowledge of learning disabilities: the relationship with choice, duty of care and non-aversive approaches. Journal of Learning Disabilities for Nursing, Health and Social Care. 3(1), 27-33.

McKenzie, K., Matheson, E., McKaskie, K., Patrick, S., Murray, G.C., Paxton, D. & Michie, A.R. (2000). Health and social care staff responses to working with people with a learning disability who display sexual offending type behaviours. Journal of Sexual Aggression. (In Press).

McVilly, K.R. (1997). Residential staff: How they view their training and professional support. British Journal of Learning Disabilities. 25, 18-25.

Mental Health Act 1983 Code of Practice (1983). HMSO; London.

Mental Health Foundation (1996). Building Expectations. Mental Health Foundation. London.

Morch, W. & Eikeseth, S. (1992). Some issues in staff training and improvement. Special Issue: Community based treatment programs: Some problems and promises. Research in Developmental Disabilities, 13(1), 43 - 55.

Munton, A., Mooney, A., Rowland, L. (1995). Helping providers to improve quality of day-care provision: Theories of education and learning. Early Child Development and Care. 118, 15 - 25.

Murray, G.C., McKenzie, K., Kidd, G.R., Lakhani, S. and Sinclair, B. (1998). The Five Accomplishments: A Framework for Obtaining Customer Feedback in a Health Service

Community Learning Disability Team. British Journal of Learning Disabilities. 26(3), 94-99.

Murray, G.C., McKenzie, K., Quigley, A. & Sinclair, B. (2000). The relationship between training and the experience of aggression in the work-place in social care staff working in learning disability services. Journal of Learning Disabilities for Nursing, Health and Social Care . 3(4), 214-218.

Murray, M & Chambers, M. (1991). Effects of contact on nursing students' attitudes to patients. Nurse Education Today. 11, 363-367.

Murphy, G.H. & Clare, I.C.H. (1995). Adults' capacity to make decisions affecting the person: Psychologists' contribution. In R. Bull & D. Carson (Eds.) Handbook of psychology in legal contexts. John Wiley & Sons.

Nagarajaiah, R; Chandrashekar, D; Parthasarathy, R. (1994). Perceived skills of multipurpose health workers in the management of mental disorders. NIMHANS Journal, 12(1), 15 - 20.

Nirje, B. (1969). The Normalisation Principle and its Human Management Implications. In R. Kugel & W. Wolfensberger (eds.) Changing Patterns in Residential Services for the Mentally Retarded. Washington DC. President's Committee on Mental Retardation.

North Western Regional Advisory Group for Learning Disability Services. (1990). In Burton, M (Ed.) Caught in the Competence Trap: A Report on Service Provision for Adults with Moderate Learning Difficulties. North Western Regional Health Authority, Manchester.

- Nunkoosing, K. (1995). Learning disability: Psychology's contribution to diagnosis, assessment and treatment. In R. Bull & D. Carson (Eds.) Handbook of psychology in legal contexts. John Wiley & Sons.
- Nurse, N., Rhode, J. & Farmer, R. (1990). Words used to refer to people with mental handicaps. Mental Handicap. 18(1), 30-32.
- O'Brien, J. (1992). Developing High Quality Services for People with Developmental Disabilities. In Bradley, V.J. and Bersani, H.A. (Eds.). Quality Assurance for Individuals with Developmental Disabilities. Paul Brookes, Baltimore.
- Paris, M. (1993). Attitudes of medical students and health care professionals toward people with learning disabilities. Archives of Physical Medicine and Rehabilitation. 74, 818-825.
- Porterfield, J. (1987). Positive monitoring. Kidderminster: BIMH Publications.
- Pulsifer, M.B. (1996). The neuropsychology of mental retardation. Journal of the International Neuropsychological Society. 2, 159-176.
- Rawlings, M., Dowse, L. & Shaddock, A. (1995). Increasing the involvement of people with an intellectual disability in choice-making situations: A practical approach. International Journal of Disability, Development and Education. 42, 137-153.
- Rees, L.M., Spren, O. & Harnadek, M. (1991). Do Attitudes Towards Persons with Handicaps Really Shift Over Time? Comparison between 1975 and 1988. Mental Retardation. Vol. 29(2), 81-86.

Reid, D.H., Parsons, M.B. & Green, C.W. (1989). Staff Management in Human Services: Behavioural Research and Application. Charles C. Thomas: Springfield ILL.

Rodgers, J. (1993). Primary health care provision for people with learning disabilities. Health & Social Care. 2, 11-17.

Rose, J. (1995). Stress and residential staff: towards an integration of existing research. Mental Handicap Research. 8, 220-236.

Rose, J. & Holmes, S. (1991). Changing staff attitude to the sexuality of people with mental handicaps: An evaluative comparison of one and three day workshops. Mental Handicap Research. 4, 67-79.

Royal College of General Practitioners. (1990). Primary care for people with a mental handicap. Occasional Paper 47. RCGP, London.

Scottish Executive (2000). The same as you? A review of services for people with learning disabilities. Scottish Executive, Edinburgh.

Sharrad, H.E. (1992). Feeling the Strain: Job Stress and Satisfaction of Direct-Care Staff in the Mental Handicap Service. The British Journal of Mental Subnormality. 7, 32-38.

Shevin, M. & Klein, N.K. (1984). The importance of choice-making skills for students with severe disabilities. The Journal of the Association for Persons with Severe Handicaps. 9(3), 159-166.

Slevin, E & Sines D. (1996). Attitudes of Nurses in a general hospital towards people with learning disabilities: influences of contact undergraduate-non-graduate status - a comparative study. Journal of Advanced Nursing. 24(12), 1116-1126.

Slevin, E. (1995). Student Nurses' Attitudes Towards People with Learning Disabilities. British Journal of Nursing. 4 (143), 761-766.

Smith, B., Wun, W-L. & Cumella, S. (1996). Training for staff caring for people with learning disability. British Journal of Learning Disabilities. 24, 20-25.

Social Services Inspectorate (1990). Training for community care- a strategy. London: Department of Health.

Sperlinger, A. (1997). Introduction. In O'Hara, J. & Sperlinger, A. (1997) Adults with learning disabilities: A practical approach for health professionals. John Wiley & Sons: Chichester.

Stanley, B. & Standen, P.J. (2000). Carer's attributions for challenging behaviour. British Journal of Clinical Psychology. 39, 157-168.

Stancliffe, R.J., Hayden, M.F. & Lakin, K.C. (1999). Interventions for challenging behaviour in residential settings. The American Journal on Mental Retardation. 104, 364-375.

Stromsness, M. (1993). Sexually Abused women with Mental Retardation. Hidden victims, absent resources. Women & Therapy. 14(3-4), 139-152.

Stalker, K. & Harris, P. (1998). The exercise of choice by adults with intellectual disabilities: A literature review. Journal of Applied Research in Intellectual Disabilities. 11(1), 60-76.

Taylor, I. O'Reilly, M. & Lancioni, G. (1996). An evaluation of an ongoing consultation model to train teachers to treat challenging behaviour. International Journal of Disability, Development and Education. 43(3), 203 - 218.

The British Psychological Society (1991). Mental Impairment and Severe Mental Impairment: A search for definitions. The British Psychological Society: Leicester.

Thornton, C. (1997). Meeting the health care needs of people with learning disabilities. Nursing Times. 93(20), 52-54.

Thurman, S. (1997). Challenging behaviour through communication. British Journal of Learning Disabilities,. 25, 111- 116.

Turner, S. & Moss, S. (1996). The health needs of adults with learning disabilities and the health of the nation strategy. Journal of Intellectual Disability Research. 40(5), 438-450.

Tyne, A. and O'Brien, J. (1981). The Principles of Normalisation. Campaign for Mentally Handicapped People. Campaign for Mental Handicap Education and Research Association (CCMH/CMHERA), London.

UKCC (1989). Exercising accountability: A framework to assist nurses, midwives and health visitors to consider ethical aspects of professional practice. UKCC Advisory Document. London: UKCC.

UKCC Code of conduct (3rd Edition) June 1992. London: UKCC.

United Nations (1971). Declaration of the general and specific rights of the mentally retarded. United Nations. New York.

Ward, A.D. (1984). Scots Law and the Mentally Handicapped. Scottish Society for the Mentally Handicapped, Enable.

Ward, L. (1989). An ordinary life: The early views and experiences of residential staff in the Wells Road Service. Mental Handicap. 17, 6-9.

Ward, L. (1987). After induction- then what? The British Journal of Mental Subnormality. 33(2), 131-142.

Wilson, D & Haire, A. (1990). Health care screening for people with a mental handicap living in the community. British Medical Journal. 301, 1379-1381.

Wilson, P., Reid, D., Korabek-Pinowski, C. (1991). Analysis of public verbal feedback as a staff management procedure. Behavioural Residential Treatment. 6(4), 263 - 277.

Wolfensberger, W. & Nirje, B. (1972). The Principle of Normalisation in Human Services. National Institute of Mental Retardation. Toronto.

Wolfensberger, W. (1975). The origin and nature of our institutional models. Human Policy Press: Syracuse.

Wolfensberger, W. (1983). Social Role of Valourisation: a proposed new term for the principle of normalisation. Mental Retardation. 21(6), 234-239.

World Health Organisation (1980). ICD-10 Describing developmental disability. Guidelines for a multiaxial classification scheme for mental retardation (learning disability). International statistical classification of disease and related health problems. 10th Edition. World Health Organisation. Geneva.

Ziarnik, J.P. & Bernstein, G.S. (1982). A critical examination of the effect of inservice training on staff performance. Mental Retardation. 20(3), 109-114.

Appendix 1

Learning Disability Service Survey of General Practitioners' Opinions

1. What is your understanding of the term "learning disability"?

2. Are you able to identify the numbers of people with a learning disability on your caseload? (please tick)

Yes ☐ No ☐

3. Would you feel in a position to diagnose whether someone on your caseload had a learning disability or would you see this as requiring a specialist assessment?

Able to diagnose myself ☐ Needs specialist assessment ☐

4. What do you feel are the three most common healthcare needs of people with a learning disability?

a)
b)
c)

5. To what extent do you feel the healthcare needs should be provided by a specialist multi-disciplinary learning disability team? (Place a cross on the continuum which best reflects your opinion).

0 1 2 3 4 5 6 7 8 9 10
|-----|

Needs can be met by GPs Needs should be entirely met by a specialist multi-Disciplinary learning disability team

5. Any additional comments:

Appendix 2: Evaluation of the impact of training on staff knowledge-Staff questionnaire

This questionnaire forms part of a training evaluation project. Your participation is voluntary and all responses are anonymous and confidential.

Section one

Job Title:

How many years of experience do you have working with people with a learning disability?

Sex: Male/Female (Please circle)

Have you received challenging behaviour training before, other than that provided by ourselves? Yes/No (Please circle).

Have you completed a questionnaire like this before? Yes/No (please circle).

If Yes, how long ago was this? 0-3months 3-6months 6-12months (please circle).

Section two

What is your understanding of the term 'learning disability'?

What is your understanding of the term 'challenging behaviour'?

Which factors do you think are important in dealing with challenging behaviour?

What is your understanding of the term 'duty of care'?

Section three

Please answer the questions in relation to the following scenarios.

Scenario one

James is a young man currently living in a group home. He enjoys eating what most consider to be unhealthy. He is presently overweight, but has expressed a preference for not going on a diet.

How would you deal with this situation?

What would be the deciding factors for you in choosing this course of action?

Scenario two

Graham was a previous sexual offender. He is now beginning a relationship with Lucy. Both live in a residential home. They have requested that they be able to close and lock Lucy's bedroom door when they are alone together. Staff suspect they may wish to begin a sexual relationship.

How would you deal with this situation?

What would be the deciding factors for you in choosing this course of action?

Thank you very much for your co-operation. Karen McKenzie, clinical psychologist

Appendix 3: Staff evaluation of the quality of training questionnaire

Please tick the appropriate answer.

1. Was the course

Too long

Just right

Too short

Comments:

2. Were the topics

Very relevant

Quite relevant

Irrelevant

Comments:

3. Was the language

Too difficult

Just right

Too easy

Comments:

4. Were the activities

Very helpful

Quite helpful

Unhelpful

Comments:

5. Which (if any) topics should we miss out?

6. Which (if any) do we need to include?

7. Which (if any) topics do we need more information on?

8. Which (if any) topics do we need less information on?

9. Was the hand-out

Very useful

Quite useful

Useless

Comments:

10. Was the quality of the presentation

Good

Quite good

Poor

Comments:

11. Any other comments?

Karen McKenzie/Donna Paxton

1. How well did the course meet the objectives set and your needs in particular?

- Quite well
- Fine
- Very well
- Very helpful - A complex topic but it was relevant and helpful to my job
- Very reluctant to job and very well laid out
- Very well
- Very good
- Very well
- Very well
- The course met my objectives well
- Very well

2. Which parts did you find more relevant?

- All
- None any more relevant than the others
- Behaviour modification thinking of a problem and working through it
- What/How to use positive/negative reinforcement
- Finding out what positive and negative reinforcers are
- All
- All
- All parts were very relevant
- Dealing with behaviour

3. Which parts were least relevant?

See above

None

None

None

N/A

4. Was there a good mix of learning methods e.g. group work, discussion, pair work, discussion etc.?

- Yes
- Yes
- Yes
- Yes, it kept my attention
- Yes
- The mix was excellent
- Discussion and group work
- Yes
- Yes
- Yes

5. What if anything could be added to the course?

- No
- None that I could think of
- Well covered already
- Nothing
- Nothing

6. How satisfactory were the lunch arrangements, the room etc.?

- Good
- Lunch arrangements did not meet by individual needs - i.e. not butter or marg on sandwiches

- Fine
- Good
- Satisfactory
- Very satisfactory
- Fine
- Excellent - Thanks
- Fine
- Fine
- Good

7. How do you plan to take the learning from today back into your work?

- To look at different strategy's to deal with different behaviour
- Discuss at team meetings. Observation thanks - possible alteration to support plans
- Put it into practice
- Discuss with team members putting a plan into action
- Work in a different way on differnt tenant
- Try and work with a specific tenatn
- Work on any behaviour issues
- Put into practice what has been taught
- Course not yet finished
- Apply to working with tenants

8. Any other comments?

- Excellent course, very interesting and informative
- No

THANK-YOU FOR COMPLETING THIS FORM. PLEASE
RETURN AT END OF THIS COURSE

COURSE NAME: CHALLENGING BEHAVIOUR
TRAINER: DONNA PAXTON & KAREN MCKENZIE
DATE: 2 SEPTEMBER 1998

1. How well did the course meet the objectives set and your needs in particular?

- Good introduction to important issue
- Fine
- Well
- Very well
- Very well - I have a much better understanding of challenging behaviour
- Did not come with objectives
- Good, but it is all about time
- Very good
- N/A
- Fine
- Very well
- Very well
- Very well

2. Which parts did you find more relevant?

- All
- All
- All
- All
- All seemed relevant
- Positive reinforcement
- Negative reinforcement
- All relevant
- In felt that most of the course was relevant and very informative

- All
- All parts
- All

3. Which parts were least relevant?

- None
- None
- None
- None
- None, all was important for the job I do
- Nil

4. Was there a good mix of learning methods e.g. group work, discussion, pair work, discussion etc.?

- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Good mix
- Yes
- Yes
- Yes
- Yes
- Yes

5. What if anything could be added to the course?

- None
- Time to discuss in housegroups specific problems
- More time to take it all in, hand outs

- No
- More examples of exact assaults

6. How satisfactory were the lunch arrangements, the room etc.?

- Fine
- Good
- Very good
- Room was a bit too warm, lack of air circulation. Lunch was great
- Satisfactory
- Fine
- Lunch okay, room too hot and stuffy - even with windows open
- Excellent
- Good
- Fine
- Lunch excellent - room too small poor ventilation

7. How do you plan to take the learning from today back into your work?

- Discuss at team meeting
- Help to understand tenants behaviour
- Try and use solutions and suggestions
- Through discussion at team meetings
- Discuss with house team and put into practice
- Will need time to think about this
- Will be considering this when working with tenants
- I will have a better understanding and usable methods for working with one service user in particular
- By trying to develop a behaviour plan for one of our tenants
- Better understanding able to put to practice
- Talk to rest of staff team
- Work with reinforcement theories

8. Any other comments?

- Met my needs well. A better understanding and definition of challenging behaviour
- Need more time. Handouts
- No

THANK-YOU FOR COMPLETING THIS FORM. PLEASE
RETURN AT END OF THIS COURSE

EVALUATION FORM

COURSE NAME: Challenging Behaviour

TRAINER: Karen McKenzie & Donna Paxton

DATE: 29/30 June 1998

1. How well did the course meet the objectives set and your needs in particular?

- Excellent - answered all the questions that I had
- Very well. I enjoyed the course very much
- I found the course covered all aspects of what I have come up against over the last year
- Quite well/positive
- Re-Informed me of the differences between Learning Disability and Learning Difficulties
- Very well. Lot's of information
- The course was very clear and helped me to understand things in a much better way
- Quite well
- Very well. Very informative
- The course met the needs quite well
- Very well
- Very well
- Very well
- Excellent
- Shown new ideas on how to deal with certain situation
- Very well
- Clarified a lot of issues helped wit practical topics i.e. reporting incidents and diverting conflict

2. Which parts did you find more relevant?

- All parts had to be viewed as a package rather than individual parts
- It was all equally relevant
- How to stop a situation before it becomes physical
- All of the course was relevant
- I found all areas very relevant
- Most of it
- Most of it

- Found it all relevant
- All of it
- Physical reactions to threat and danger
- All relevant
- It was all relevant. However I enjoyed looking at ways to log information
- Different ways of documenting incidents etc.
- Good explanations for causes and actions that could be taken
- Dealing with different types of behaviour
- The group discussions was very good
- Specific examples and cases

3. Which parts were least relevant?

- None
- Nothing was irrelevant
- Talking about the ACB charts this didn't really interest me as I have had loads of experience before the course
- None
- None
- Everything was relevant
- None
- None
- None

4. Was there a good mix of learning methods e.g. group work, discussion, pair work, discussion etc.?

- No, but not really necessary
- Yes
- Yes
- Yes
- Lots of discussion perhaps would benefit from more group work and pair work
- Yes
- yes

- Yes
- Maybe more group work
- Yes
- Yes
- Yes
- yes, no role play. Thank goodness
- Yes
- Yes
- Yes
- Yes

5. What if anything could be added to the course?

- Certificate, in depth analysis
- Nothing
- Calming training
- Training of restraint techniques
- Nothing
- Nothing
- More input on how to deal with challenging behaviour and maybe some role play
- Follow up course
- Follow up course
- From the OPH which you used
- The course was fine
- Nothing obvious springs to mind

6. How satisfactory were the lunch arrangements, the room etc.?

- Perfect
- Very good
- Why can't we have a course lunch from the council
- Okay

- Okay
- Not satisfactory too many noisy interfering with concentration
- Lunch was quite good too much noise from traffic
- Nice buffet, room was fine
- Quite good
- Good
- Very good
- Very nice buffet, the room was fine
- Fine, no problems
- Not as good as previous occasions
- Satisfactory
- Good compared to some courses I've been on

7. How do you plan to take the learning from today back into your work?

- Put into practice
- Have more understanding of challenging behaviour
- Putting some of the behaviour planning into action with the rest of the team
- Can make contingency plan for any incidents that may occur within work place with other team members
- Approach presentors - ask to come to house and observe clients
- More confident and looking forward to putting into practice
- Pass knowledge. Put to staff team. Clear guidelines for staff to enable consistency
- Feedback the team and put into practice
- Yes
- This will make me think about my own behaviour towards the tenants
- To take the information back to the staff team for discussions. And use the information in the future
- By discussing with other members of staff
- Put relevant items into practice
- I want to re examine how the staff deal with one client in particular and try some of the positive re-enforcement techniques with them

8. Any other comments?

- Very good course, speakers were very knowledgeable and worked well as a team
- It was well run. Very interesting and kept me very active, especially after my sleep over
- Excellent course
- Looking forward to the follow up course
- Very enjoyable
- None, well friendly and very informal day
- None
- Very enjoyable course
- No, but not really necessary

THANK-YOU FOR COMPLETING THIS FORM. PLEASE
RETURN AT END OF THIS COURSE

EVALUATION FORM

Course Name: Challenging Behaviour One
Trainers: Donna Paxton and Karen McKenzie
Date: 1 September 1999

1. How well did the course meet the objectives set and your needs in particular?

Quite well
Very well
Very well
Very well
Very clear and concise
Quite well. Could have been a bit more exciting but I have learned a lot.
Fine, very good
Well
Good
Good

2. Which parts did you find more relevant?

Definitions of what the trainers did
Legislative information. Description of principles and practice of behaviour modification.
All of it
All relevant
Positive/negative reinforcement and relevant approach/awareness of boundaries
Positive and negative reinforcement. Very relevant.
I found it all relevant
All
All
None, everything well balanced.

3. Which parts were least relevant?

None
It was all relevant
All
None
I found it all relevant
None
Some of the group discussions

4. Was there a good mix of learning methods, e.g. group work, discussion, pair work, etc.

No - too much reliance on overhead projector and not enough doing anything
Yes
Yes-a suitable mix
Yes. Good discussion work. Good over head.
Yes
Not really
Yes it was very good
Yes
Yes
Yes

5. What if anything could be added to the course?

Scenarios form participants and discussion on this
It could be longer with more group work
More practical or group work
More "real" acting.

6. How satisfactory was the room, etc.?

The room was fine
The room was far too hot and stuffy even with windows open

How do you plan to take the learning from today back into your work?

work with team and devise effective planning
using it to re-write parts of the support plan
discussion at team meeting
want to put it into practice
talk about psychiatric evaluation or behaviour evaluation with my team
look at own approaches made to tenants who display challenging behaviour
discussion with team
likely – by bringing it up at the team meeting
may introduce a behaviour analysis programme (directed by the trainers)
work with the team. Know the importance of following up with any behaviour modification.

Any other comments?

very good. I'm glad it wasn't too serious – that helps a lot in keeping our attention
may be a good gesture for ELCAP to provide lunch for course leaders
was a really good course

- See above
- None
- None
- None
- N/A

4. Was there a good mix of learning methods e.g. group work, discussion, pair work, discussion etc.?

- Yes
- Yes
- Yes
- Yes, it kept my attention
- Yes
- The mix was excellent
- Discussion and group work
- Yes
- Yes
- Yes

5. What if anything could be added to the course?

- No
- None that I could think of
- Well covered already
- Nothing
- Nothing

6. How satisfactory were the lunch arrangements, the room etc.?

- Good
- Lunch arrangements did not meet by individual needs - i.e. not butter or marg on sandwiches

See above

None

None

None

N/A

4. Was there a good mix of learning methods e.g. group work, discussion, pair work, discussion etc.?

• Yes

• Yes

• Yes

• Yes, it kept my attention

• Yes

• The mix was excellent

• Discussion and group work

• Yes

• Yes

• Yes

5. What if anything could be added to the course?

• No

• None that I could think of

• Well covered already

• Nothing

• Nothing

6. How satisfactory were the lunch arrangements, the room etc.?

• Good

• Lunch arrangements did not meet by individual needs - i.e. not butter or marg on sandwiches

Appendix 5: Publications from the thesis of Karen McKenzie

McKenzie, K., Murray, G.C., Higgon, J. & Matheson, E (1999) Knowledge of learning disability: the relationship with choice, duty of care and non-aversive approaches. Journal of Learning Disabilities for Nursing, Health and Social Care. 3(1); 27-33

McKenzie, K., Murray, G.C. & Matheson, E. (1999) Learning disability services- a survey of general practitioners opinion. Scottish Medicine. 17(5); 4-6.

McKenzie, K., McIntyre, S., Matheson, E. & Murray, G.C. (1999) Health and social care workers' understanding of the meaning and management of challenging behaviour in learning disability services. Journal of Learning Disabilities for Nursing, Health And Social Care. 3(2); 98-105.

McKenzie, K., Murray, G.C., Higgon, J. & Matheson, E. (1999) What is a learning disability? - Do people need to be reminded. Learning Disability Practice. 2(1); 8-11.

McKenzie, K., Matheson, E., Patrick, S., Paxton, D. & Murray, G.C. (2000) An evaluation of the impact of a one day training course on the knowledge of health, day care and social care staff working in learning disability services. Journal of Learning Disabilities. 4(2); 153-165.

McKenzie, K., Murray, G.C. & Matheson, E. (2000) An examination of health and social care workers' knowledge and application of the concept of duty of care. Journal of Adult Protection (Submitted for publication)

An evaluation of the impact of a one-day challenging behaviour course on the knowledge of health and social care staff working in learning disability services

KAREN MCKENZIE Haddington, East Lothian, Scotland
 DONNA PAXTON Haddington, East Lothian, Scotland
 SHONA PATRICK Haddington, East Lothian, Scotland
 EDITH MATHESON Gartnavel Royal Hospital, Glasgow, Scotland
 GEORGE C. MURRAY Dingleton Hospital, Melrose, Scotland



Journal of
Learning Disabilities

43 2000

SAGE PUBLICATIONS

London, Thousand Oaks

and New Delhi

VOL. 4 (2) 153-165

013475

ISSN 1469-0047(200006)4:2

Abstract The present study evaluates the impact of a one-day challenging behaviour course on the knowledge of 59 staff (20 health, 20 social care, 19 day care) as compared with a control group ($n = 73$). The study found that training led to a significant increase in knowledge in the trained group on all factors but one. This was the identification of the main factors important in responding to challenging behaviour. In relation to this, staff appeared to identify only those factors either which would clearly be within their remit or which they would be more likely to use in their daily work, e.g. health staff identifying psychological approaches, day care and residential staff identifying reactive strategies. Gains in knowledge were found to be similar in those groups followed up immediately, 3–6 months and 6–12 months after training. No significant differences in scores between baseline and follow-up were found for the group who had not received training.

Keywords challenging behaviour; evaluation; health and social care staff; training

Previous research suggests that knowledge about key aspects relevant to the care of individuals with a learning disability may be limited in the general

public, but also in the two main groups involved in their care: health and social care staff. Staff have been found to lack awareness about the criteria of a learning disability (Barr, 1995; McKenzie et al., 1999b), the range of approaches required to successfully manage challenging behaviour (McKenzie et al., 1999a) and their duty of care to clients (McKenzie et al., 2000). A lack of knowledge has been shown to impact on all of the following: staff anxiety; job turnover and burnout rates (Allen et al., 1990; Bromley and Emerson, 1995; Sharrad, 1992); the inappropriate management of challenging behaviour (Hastings et al., 1995); failure to adequately fulfil duty of care to clients (Lyll et al., 1995); and failure to deliver appropriate primary health care services (Kerr et al., 1996).

This is of concern as the quality of many community based services is thought to rely heavily on the skills and efficiency of staff (Hastings, 1995; Porterfield, 1987; Rose, 1995). Social care and day care staff spend more time in direct contact with clients than health care professionals and are therefore more likely to be agents of change in terms of introducing interventions and guidelines designed by health professionals (Berryman et al., 1994). In addition, the approaches adopted by these staff can both impact on client behaviours and contribute to the success or failure of interventions (Hastings and Remington, 1994).

The importance of staff training in the successful implementation of community care policies was highlighted early on in the White Paper *Better Services for the Mentally Handicapped* (DHSS, 1971). Subsequent research has also emphasized the importance of providing care staff with appropriate and relevant training (Department of Health, 1993; Hogg and Mittler, 1987; Social Services Inspectorate, 1990). Staff have also cited insufficient training as a major factor contributing to stress, burnout and job turnover (deKock et al., 1987; Ward, 1989).

In response to the need for training responsive to the needs of social care staff, a number of formal courses have developed in Britain. These include the introduction of National Vocational Qualifications (NVQs) (Care Sector Consortium, 1992) and the establishment in 1981 of the qualification of a Certificate in the Further Education and Training of Mentally Handicapped People. In addition, accredited degree and diploma courses are available at a number of universities and colleges (McVilly, 1997). Despite this, a study by Knapp et al. in 1989 found that nearly half of staff working in community settings had failed to receive formal training. A more recent study by Smith et al. (1996) of 299 staff working within community based residential settings found that only 12 percent of managers and 17 percent of care staff had received induction training. In relation to other training, 75 percent of care staff in private establishments had not attended any courses in the previous five years. This was also true for

32 percent of local authority care staff, 17 percent of voluntary sector care staff and 4 percent of health care staff. All training was also found to be based on short in-service courses. In addition, only 45 percent of participants overall identified a need for further training. Research has also indicated that while both staff and managers of social care services identify many of the areas covered by qualifications such as NVQs as important, many felt that the training they had received was inadequate in relation to that required for their job (McVilly, 1997).

Staff training has been found by some authors to be an effective means of increasing the levels of knowledge of staff working in learning disability services (Allen et al., 1997; Kobe and Mulick, 1995; Nagarajaiah et al., 1994). However, other evaluations of the impact of training have not always found it to be cost-effective (Ziarnik and Bernstein, 1982) or to result in long-term behavioural or attitudinal change in staff (Baker, 1998; Evans, 1990). However, evaluating the effectiveness of staff training is in itself difficult. Mansell (1989) noted that the impact of training is difficult to establish in complex social organizations, and as such is rarely attempted. The outcome of training can also be affected by a number of factors:

- The social, organizational and political context that the staff work in (Fitzsimmons and Barr, 1997; Harper, 1994). Thus, if changes in staff attitudes, knowledge and behaviour are not supported in the work environment, they are unlikely to be maintained over time.
- Staff characteristics, e.g. experience, skills and knowledge (Landesman-Dwyer and Knowles, 1987).
- The perceived quality, relevance and applicability of the training itself (Harper, 1994; Ward, 1987). Thus, if the quality of the training is poor or the content is irrelevant to the target group it may be less likely to have the desired impact on staff.

Staff training can be time-consuming and expensive (Ziarnik and Bernstein, 1982) and it has not always been shown to be effective (Baker, 1998). However, as noted above, if a service fails to provide staff with the skills, knowledge, motivation and support required to provide at least an adequate standard of service to clients, this can be costly in terms of client and staff safety and well-being. It is therefore important to establish clearly the type and nature of the training needs of the service in question. It may be that for some services, deficits are due to limited staff knowledge, while for others organizational or motivational factors prevent staff knowledge from being applied. It is also necessary to establish which goals the training is designed to meet and to establish which outcome measures will be used to evaluate effectiveness. Ziarnik and Bernstein (1982) outline five different types of outcome measures used in this field:

- subjective, i.e. what staff report about the usefulness, validity, quality etc. of the training
- cognitive, i.e. knowledge gain
- behavioural, i.e. the impact of training on behaviour
- client centred, i.e. the impact on clients
- organizational, i.e. the impact on the work organization.

Unfortunately, while staff may subjectively report that training is useful and valid, it may have had little impact on their knowledge levels or behaviour (Ziarnik and Bernstein, 1982). As a result the evaluation of any given training course requires that an examination is made of the extent to which it achieves what it set out to, whether in terms of knowledge, attitudinal or behavioural change. The present study therefore aims:

- To assess the impact of a one-day challenging behaviour course on the knowledge of health, social care and day care staff about the following areas: criteria of a learning disability; definition and management of challenging behaviour; client choice and duty of care.
- To compare this with the knowledge of a control group who have not received training.

It was hypothesized that there would be a significant increase in the knowledge of the staff who had received training, but no significant increase for the control group.

Method

The participants in this study were three groups of staff who worked with individuals with a learning disability (20 residential staff, 19 day care staff, 20 health staff) giving a total sample size of 59. All of the participants completed a questionnaire utilized in previous studies to examine levels of knowledge in the following areas:

- criteria for a learning disability (McKenzie et al., 1999b)
- defining and managing challenging behaviour (McKenzie et al., 1999a)
- duty of care (McKenzie et al., 2000).

In addition, staff were asked to describe how they would respond to two scenarios which required a balance between enabling client choice and ensuring duty of care. The first scenario depicted a situation where an overweight client had expressed that he did not wish to go on a diet. The second described a situation where clients wished to have a sexual relationship. These are outlined in detail in McKenzie et al. (2000). A note was also taken of the gender of the respondent, number of years of

experience in learning disability services and, at follow-up, time since training.

All participants were asked to complete the questionnaires prior to a one-day training course provided by two of the authors: a clinical psychologist and a community learning disability charge nurse. The training course was entitled 'An introduction to challenging behaviour' and included the following components

- What is a learning disability?
- What is duty of care?
- What is challenging behaviour?
- Defining, recording and assessing behaviours.
- Reactive strategies.
- Basic behavioural approaches.
- Positive programming approaches.

All the staff participating had expressed an interest in attending the course and were aware that their completion of the questionnaire was voluntary and that their responses would remain anonymous. All participants were asked to complete the questionnaire at the beginning of the course and either immediately ($n = 27$), 3–6 months ($n = 12$) or 6–12 months ($n = 15$) after training. In addition all staff members were asked to complete a training evaluation form at the end of the training day. This assessed the quality and relevance of the training to participants. A comparison of the results obtained with the above groups were compared with a control group of individuals who had completed the initial questionnaires, but had not subsequently received the one-day training course. The questionnaire and method were identical to those for the staff who had received training. Participants consisted of residential staff ($n = 25$), day care staff ($n = 20$) and health staff ($n = 28$) giving a total sample size of 73. Table 1 illustrates the gender and mean months of experience of working in learning disability services for the trained and control groups.

In addition 20 responses from the trained staff (34 percent) were coded by two raters, to give an indication of inter-rater reliability.

Results

Inter-rater reliability

The application of the statistic kappa illustrated that values for all of the factors were significant at either $p < 0.01$ or $p < 0.05$, indicating inter-rater reliability between the two raters on all of the items coded.

Table 1 Gender and mean months of experience of working in learning disability services for the trained and untrained groups

	Male		Female		Experience	
	no.	%	no.	%	mean	SD
<i>Trained</i>						
Health	3	14	18	86	19.7	31.3
Residential	3	15	17	85	68.8	57.8
Day care	7	39	11	61	124.4	82.1
Total	13	22	46	78	69.2	73.2
<i>Untrained</i>						
Health	4	14	24	86	119.7	85.4
Residential	9	36	16	64	72.6	50.8
Day care	11	55	9	45	81.9	55.2
Total	24	33	49	67	92.5	69

Trained and untrained staff

No significant differences were found between the trained and untrained staff in relation to sex or experience.

Comparison of trained and untrained staff scores at baseline and follow-up

Table 2 illustrates the factors for which a significant difference in scores was found between the trained and untrained staff at baseline and follow-up.

Table 2 Factors for which a significant difference in scores was found between the trained and untrained staff at baseline and follow-up

Factor	Group	Mean	SD	Value of t	d.f.	Significance
Definition of learning disability	Trained	1.43	0.89	-3.6	131	$p < 0.01$
	Untrained	2.0	0.91			
Duty of care	Trained	1.47	1.17	-2.1	130	$p < 0.05$
	Untrained	1.95	1.42			
Definition of learning disability, follow-up	Trained	1.47	0.93	2.36	116.4	$p < 0.05$
	Untrained	1.11	0.79			
Duty of care, follow-up	Trained	2.47	1.23	2.14	131	$p < 0.05$
	Untrained	1.97	1.4			

Impact of training on scores

Trained group Table 3 illustrates the mean scores and standard deviations before and after training for all scores for which significant differences were found after training.

Untrained staff No significant differences were found on any of the factors at follow-up for untrained staff.

Differences in scores according to follow-up period

A one-way ANOVA found significant differences in the management of challenging behaviour scores before training according to follow-up period ($F = 6.217$; $d.f. = 53$; $p < 0.05$). A Tukey test illustrated that the score was significantly lower in the group which was followed up immediately after training (mean = 1, $SD = 0.555$) as compared with the group followed up 6–12 months after training (mean = 1.667, $SD = 0.617$). Similarly, a significant difference was found after training ($F = 4.449$; $d.f. = 53$; $p < 0.05$). A Tukey test demonstrated that the score was significantly lower for individuals followed up immediately after training (mean = 1.11, $SD = 0.577$) as compared with those followed up 6–12 months after training (mean = 1.67, $SD = 0.62$). No further significant differences were found before or after training on any of the other scores.

Evaluation of training: trainer questionnaires

Table 4 illustrates trained staff responses to the evaluation questionnaire items.

Table 3 Mean scores and standard deviations for all scores on which significant differences were found following training

Factor	Before		After		Value of t	d.f.	Significance
	mean	SD	mean	SD			
Understanding a learning disability	1.43	0.89	2.3	0.91	-6.834	59	$p < 0.001$
Understanding of challenging behaviour	1.03	0.84	1.47	0.93	-4.375	59	$p < 0.001$
Understanding of duty of care	1.47	1.18	2.51	1.19	-6.851	58	$p < 0.001$
Scenario 1	2.19	1.21	2.83	1.21	-4.759	57	$p < 0.001$
Scenario 2	2.57	1.48	3.21	1.35	-3.717	57	$p < 0.001$

Table 4 Trained staff responses to trainer evaluation questionnaire items*

1 Was the course	Too long		Just right		Too short	
	no.	%	no.	%	no.	%
	0	0	54	92	5	8
2 Were the topics	Very relevant		Quite relevant		Irrelevant	
	no.	%	no.	%	no.	%
	52	88	7	12	0	0
3 Was the language used	Too difficult		Just right		Too easy	
	no.	%	no.	%	no.	%
	0	0	59	100	0	0
4 Were the activities	Very helpful		Quite helpful		Unhelpful	
	no.	%	no.	%	no.	%
	45	76	14	24	0	0
5 Was the handout	Very useful		Quite useful		Useless	
	no.	%	no.	%	no.	%
	43	84	8	16	0	0 ^a
6 Was the presentation	Good		Quite good		Poor	
	no.	%	no.	%	no.	%
	46	78	13	22	0	0
7 Which topics should be missed out?	None		Some		Examples: jargon; team ideas	
	no.	%	no.	%		
	57	97	2	3		
8 Which topics should be included?	None		Some		Examples: restraint/staff attitudes/tone of voice; contact information/specific behaviours; case studies/role play/legal issues; clients without verbal communication	
	no.	%	no.	%		
	50	85	9	15		
9 Which topics should we have more information on?	None		Some		Examples: discipline/de-escalation/profound LDs; positive and negative reinforcement; legal issues/available services/violence	
	no.	%	no.	%		
	52	88	7	12		
10 Which topics should we have less information on?	None		Some		Examples: theory	
	no.	%	no.	%		
	58	98	1	2		
11 Any other comments?						
Positive comments:						
	no.	%	Examples: very informative/very interesting/brilliant; excellent course – everyone should have it before starting work; the presentation was very good because of presenters and material; very interesting and informative and relevant to my work; nice to hear from people who it would appear have experience from the coal face, not just theory			
	22	37				

* Eight participants had not yet received the handout on completing the questionnaire.

Discussion

The present study examined the impact of a one-day course covering a number of aspects of care relating to managing challenging behaviour on health, social care and day care staff, as compared with a group who did not receive training. Ziarnik and Bernstein (1982) highlight the importance of assessing training in terms of both its subjective impact, i.e. what staff report about its usefulness, validity, quality etc., and its cognitive impact, i.e. knowledge gain. In evaluating the subjective quality of the training, the training evaluation form suggested that the staff found the training to be enjoyable, understandable and of practical relevance to their work. Previous research has suggested that training must be tailored to the needs of the recipients if it is to be effective (Harper, 1994; Ward, 1987).

Of more practical relevance, however, is the cognitive impact of the training. The main finding here was that the trained group significantly increased their knowledge in relation to all of the factors measured, except those important in managing challenging behaviour. The untrained group, by contrast, showed no significant changes in their scores between baseline and follow-up. This indicated that training had a significant impact on knowledge and potential practice, as indicated by the written responses to the scenarios.

While it is initially puzzling that the training did not have a significant impact on knowledge about the factors important to managing challenging behaviour, this may be due to the way these factors were defined and how this area was presented on the course. The factors identified as important were initial reactive strategies, psychological approaches, e.g. behavioural guidelines, functional analysis, and positive programming approaches, e.g. skill teaching, anxiety management. During the course it was emphasized that staff should not undertake work that was outwith their remit. For example, day care and social care staff should not write complex behavioural guidelines, while health staff should not undertake reactive strategies such as physical restraint if not trained to do so. It would therefore appear that, even after training, each group continued to identify the area of managing challenging behaviour that they felt was within their remit and of relevance to themselves, rather than identifying all three of the areas which have been shown to be important. This suggests that future training must emphasize that, while certain factors may not be within the remit of a particular professional group, a comprehensive care plan must ensure that all three factors are taken into account.

No differences were found between the trained and control groups on gender or experience; however, prior to training the untrained group

were found to have significantly greater knowledge about the factors which define a learning disability and the factors relating to duty of care. Following training, the trained group were found to know significantly more about duty of care and defining challenging behaviour and had increased their knowledge about a learning disability to the extent that a significant difference no longer existed. This finding suggests that time-limited training is an effective means of overcoming differences in knowledge between staff members, as evidenced by the gains made by the trained group.

Researchers have highlighted the failure of some training courses to lead to long-term behavioural or attitudinal change in staff (Baker, 1998; Evans, 1990). In the present study, however, it was found that the impact of training on staff knowledge levels appeared to be maintained for up to one year after training. This was indicated by the fact that the only significant difference found between the groups followed up immediately after, 3-6 and 6-12 months after training was that which had already existed at baseline. This again suggests that the knowledge obtained by staff from the training course did not fade over time and that expensive and time-consuming retraining would not be required for at least a year following the initial input. Another possibility, however, is that staff who were followed up at longer time intervals after training used other sources, such as reading or discussion with others to retain their knowledge. If this were the case, this would be positive in that it would suggest that the training gave them a knowledge base which they were motivated to maintain or build upon by means other than formal training.

The study does, however, have limitations. As with other questionnaire based studies it cannot be assumed that significant changes in staff knowledge will lead to positive changes in staff approaches to supporting people with a learning disability. A lack of knowledge about the client group and particularly in relation to challenging behaviour has been found to affect staff practices (Hastings and Remington, 1994). However, other factors may be equally important, including motivation, attitudes and staff support systems (Fitzsimmons and Barr, 1997; Harper, 1994).

In addition, while the study showed significant increases in staff knowledge, there is no absolute level of knowledge which guarantees that staff now know enough. Individuals with a learning disability have a variety of strengths and needs and staff knowledge must be applied creatively and flexibly to harness these strengths and meet these needs. At the very least, however, the present study does suggest that training can significantly increase the knowledge base that staff have to draw on to assist in achieving this.

Conclusion

There is a demand for high quality, cost-effective services for people with a learning disability and an increasing reliance on both health professionals and direct care staff to deliver this. Professional groups are being required to provide high quality, relevant and applicable clinical input and training while direct care staff are expected to have a basic level of knowledge about people with a learning disability which allows them to sensibly and safely provide day-to-day support. Research suggests that the knowledge base of these groups may be inadequate and that this can have a negative impact on both clients and staff. Staff training has been highlighted as one means of improving staff knowledge and shaping staff attitudes (Allen et al., 1997); however, the effectiveness of such training has not been unequivocally established.

The present study, however, suggests that a one-day training course can have a significant impact on the knowledge and potential practice of health, social care and day care staff, in areas where previous studies have found staff knowledge to be limited (McKenzie et al., 1999a; 1999b; 2000). In addition, this knowledge would appear to be retained for at least one year after training. Previous researchers have indicated that training is not always cost-effective (Ziarnik and Bernstein, 1982). Given the expense of both providing training and releasing staff to attend, it is encouraging that the time-limited training presented in the current study can result in significant gains in staff knowledge which are retained over a relatively long period of time. Further research is, however, required to determine whether the knowledge gains which resulted from training translate into improved staff practices.

References

- ALLEN, P., PAHL, J. & QUINE, L. (1990) *Care Staff in Transition: The Impact on Staff of Changing Services for People with Mental Handicap*. London: HMSO.
- ALLEN, D., MCDONALD, L., DUNN, C. & DOYLE, T. (1997) 'Changing Care Staff Approaches to the Prevention and Management of Aggressive Behaviour in a Residential Treatment Unit for Persons with Mental Retardation and Challenging Behaviour', *Research in Developmental Disabilities* 18(2): 101-12.
- BAKER, D. J. (1998) 'Effects of Video-Based Staff Training with Manager Led Exercises in Residential Support', *Mental Retardation* 36(3): 198-204.
- BARR, O. (1995) 'Normalisation: What It Means in Practice', *British Journal of Nursing* 4(2): 90-4.
- BERRYMAN, J., EVANS, I. M. & KALBAG, A. (1994) 'The Effects of Training in Non-Aversive Behaviour Management on the Attitudes and Understanding of Direct Care Staff', *Journal of Behaviour Therapy and Experimental Psychiatry* 25(3): 241-50.
- BROMLEY, J. & EMERSON, E. (1995) 'Beliefs and Emotional Reactions of Care Staff Working with People with Challenging Behaviour', *Journal of Intellectual Disability Research* 39: 341-52.

JOURNAL OF LEARNING DISABILITIES 4 (2)

- CARE SECTOR CONSORTIUM (1992) *National Occupational Standards for Care*. London: HMSO.
- DEKOCK, U., FELCE, D., SAXBY, H. & THOMAS, M. (1987) 'Staff Turnover in a Small Home Service', *Mental Handicap* 15(3): 97-101.
- DEPARTMENT OF HEALTH (1993) *Services for People with Learning Disabilities and Challenging Behaviours or Mental Health Needs*. Report of the project group. London: HMSO.
- DHSS (1971) *Better Services for the Mentally Handicapped*. London: HMSO.
- EVANS, I. M. (1990) 'Teaching Personnel To Use State of the Art Non-Aversive Alternatives for Dealing with Problem Behaviour', in A. P. KAISER & C. M. MCWHORTER (eds) *Preparing Personnel to Work with Persons with Severe Disabilities*. Baltimore, MD: Brookes.
- FITZSIMMONS, J. & BARR, O. (1997) 'A Review of the Reported Attitudes of Health and Social Care Professionals Towards People with Learning Disabilities: Implications for Education and Further Research', *Journal of Learning Disabilities for Nursing, Health and Social Care* 1(2): 57-64.
- HARPER, D. J. (1994) 'Evaluating a Training Package for Staff Working with People with Learning Disabilities prior to Hospital Closure', *British Journal of Developmental Disabilities* XL(1): 45-53.
- HASTINGS, R. P. (1995) 'Understanding Factors that Influence Staff Responses to Challenging Behaviours: An Exploratory Interview Study', *Mental Handicap Research* 8: 296-320.
- HASTINGS, R. P. & REMINGTON, B. (1994) 'Staff Behaviour and its Implications for People with Learning Disabilities and Challenging Behaviours', *British Journal of Clinical Psychology* 33: 423-38.
- HASTINGS, R. P., REMINGTON, B. & HOPPER, G. M. (1995) 'Experienced and Inexperienced Health Care Workers Beliefs about Challenging Behaviours', *Journal of Intellectual Disability Research* 39(6): 22-34.
- HOGG, J. & MITTLER, P. (1987) *Staff Training in Mental Handicap*. London: Croom Helm.
- KERR, M., DUNSTAN, F. & THABAR, A. (1996) 'Attitudes of General Practitioners to Caring for People with a Learning Disability', *British Journal of General Practice* 46(403): 92-4.
- KNAPP, M., CAMBRIDGE, P. & THOMASON, C. (1989) *Final Report of the Evaluation of the Care in the Community Initiative*. Kent: PSSRU.
- KOBE, F. H. & MULICK, J. A. (1995) 'Attitudes towards Mental Retardation and Eugenics: The Role of Formal Education and Experience', *Journal of Developmental and Physical Disabilities* 7(1): 1-9.
- LANDESMAN-DWYER, S. & KNOWLES, M. (1987) 'Ecological Analysis of Staff Training in Residential Settings', in J. HOGG & P. MITTLER (eds) *Staff Training in Mental Handicap*. London: Croom Helm.
- LYALL, I., HOLLAND, A. & COLLINS, S. (1995) 'Offending by Adults with Learning Disabilities and the Attitudes of Staff to Offending Behaviour', *Journal of Intellectual Disability Research* 39(6): 22-31.
- MANSELL, J. (1989) 'Evaluation of Training in the Development of Staffed Housing for People with Mental Handicaps', *Mental Handicap Research* 2(2): 137-51.
- MCKENZIE, K., MCINTYRE, S., MATHESON, E. & MURRAY, G. C. (1999a) 'Health and Social Care Workers' Understanding of the Meaning and Management of Challenging Behaviour in Learning Disability Services', *Journal of Learning Disabilities for Nursing, Health and Social Care* 3(2): 98-105.
- MCKENZIE, K., MURRAY, G. C., HIGGON, J. & MATHESON, E. (1999b) 'What Is a

- Learning Disability? Do People Need To Be Reminded?', *Learning Disability Practice* 2(1): 8-11.
- MCKENZIE, K., MURRAY, G. C. & MATHESON, E. (2000) 'An Examination of Health and Social Care Workers' Knowledge and Application of the Concept of Duty of Care', in preparation.
- MCVILLY, K. R. (1997) 'Residential Staff: How They View their Training and Professional Support', *British Journal of Learning Disabilities* 25: 18-25.
- NAGARAJAIAH, R., CHANDRASHEKAR, D. & PARTHASARATHY, R. (1994) 'Perceived Skills of Multipurpose Health Workers in the Management of Mental Disorders', *NIMHANS Journal* 12(1): 15-20.
- PORTERFIELD, J. (1987) *Positive Monitoring*. Kidderminster: BIMH.
- ROSE, J. (1995) 'Stress and Residential Staff: Towards an Integration of Existing Research', *Mental Handicap Research* 8: 220-36.
- SHARRAD, H. E. (1992) 'Feeling the Strain: Job Stress and Satisfaction of Direct-Care Staff in the Mental Handicap Service', *British Journal of Mental Subnormality* 7: 32-8.
- SMITH, B., WUN, W.-L. & CUMELLA, S. (1996) 'Training for Staff Caring for People with Learning Disability', *British Journal of Learning Disabilities* 24: 20-5.
- SOCIAL SERVICES INSPECTORATE (1990) *Training for Community Care: A Strategy*. London: Department of Health.
- WARD, L. (1987) 'After Induction - Then What?', *British Journal of Mental Subnormality* 33(2): 131-42.
- WARD, L. (1989) 'An Ordinary Life: The Early Views and Experiences of Residential Staff in the Wells Road Service', *Mental Handicap* 17: 6-9.
- ZIARNIK, J. P. & BERNSTEIN, G. S. (1982) 'A Critical Examination of the Effect of Inservice Training on Staff Performance', *Mental Retardation* 20(3): 109-14.

Correspondence should be addressed to:

KAREN MCKENZIE, Consultant Clinical Psychologist, 9 Hospital Road, Haddington, East Lothian, Scotland.

Date accepted 07/03/00

Knowledge of learning disabilities: the relationship with choice, duty of care and non-aversive approaches

K. McKenzie, G. C. Murray, J. Higgon, E. Matheson

The present study examines the relationship between the knowledge of the diagnostic criteria for a learning disability (based on DSM IV criteria), care practices and experience in health care and social care staff. Responses to a questionnaire were analysed in terms of participants emphasis on: recognizing duty of care; enabling choice; non-aversive and aversive strategies. Results indicated that the knowledge of the criteria for a learning disability was limited, with only 16% of the sample correctly identifying all three criteria. There were no significant differences between the two groups in relation to experience or level of knowledge. No clear cut differences were found between the groups in relation to tendency to emphasize a particular management approach, with the strategies adopted appearing to be influenced by vignettes used in this study. Participants tended to give responses that identified both a recognition of their duty of care to clients and the need to enable choice. Limitations of this study are discussed.

INTRODUCTION

Persons professing skills in working with the handicapped... should be aware of the characteristics and susceptibilities of the categories of handicap with which they work (Ward 1984, p 57).

A learning disability is defined by three criteria:

- significantly sub-average intellectual functioning, with an IQ of approximately 70 or less
- concurrent deficits or impairments in present adaptive functioning in at least two of the following: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health and safety
- onsets before adulthood (DSM IV, American Psychiatric Association, 1995).

The early 1960s saw the beginnings of a radical shift in the philosophy and policy relating to the

care of people with learning disabilities. The long-stay institution was to be replaced by a range of community-based services. This resulted in people who did not require specialized medical or nursing care being able to live at home or in small scale home-like units. This changing philosophy of care and resultant change in practice was largely based on the principle of normalization (Wolfensberger 1972).

The move from largely medically-orientated institutions to community settings has been paralleled by an increasing focus on the social model of care for individuals with learning disabilities. As a consequence, the day-to-day support of people with learning disabilities changed from being the almost exclusive remit of health professionals to that of social care staff.

Both health professionals and social care staff share the common goal of caring for, and supporting, people with learning disabilities. However, they may differ in the type and amount of training that they have received. Health professionals working

Karen McKenzie, Consultant Clinical Psychologist, Learning Disabilities Service, Roadlands Hospital, 9 Hospital Road, Haddington,
George C. Murray, Consultant Clinical Psychologist, Learning Disabilities Service, Dingleton Hospital, Melrose,
John Higgon, Trainee Clinical Psychologist, Royal Edinburgh Hospital, Morningside Park, Edinburgh,
Edith Matheson, Assistant Psychologist, Roadlands Hospital, 9 Hospital Road, Haddington, UK.

Correspondence to KMck.
Paper accepted:
28 August 1998

in the field of learning disabilities will have received a formal training in the applications of their particular professional skills to this client group. By contrast, social care staff may not be required to undergo formal specialized training. While many may receive in-service training, some staff may be employed who have no previous experience or knowledge about working with people with a learning disability. Research suggests that misconceptions relating to people with a learning disability are common among the general population (Antonak et al. 1989) and that a lack of knowledge amongst care staff can impact on morale, staff turnover and client behaviour (Allen et al. 1990; Sharrad 1992; Hastings & Remington 1994). The reaction against medically-orientated institutional care has been paralleled by an increasing focus on the handicapping effect model, whereby the organic deficits (the impairment) results in functional deficits, either behavioural or cognitive (the disability). A person who is identified as disabled is further disadvantaged by negative social attitudes towards the disability (the handicap). Research suggests that both close contact with individuals with a learning disability (Slevin 1995; Hames 1996) and the provision of specific training regarding learning disabilities (Henry et al. 1996) can result in more positive attitudes.

As more individuals with learning disabilities are supported in community homes, the complex nature of the demands placed on both social care staff and health professionals becomes apparent. One of the most important of these is the need to balance a 'duty of care' (McKay 1991) towards the person they support, with a recognition of the individual's rights and choices (O'Brien 1992). In addition, there is an increasing demand on staff to support individuals with challenging behaviour (Hill & Bruininks 1984).

The understanding and sensible application of concepts such as a service's 'duty of care' to clients and obligation to manage challenging behaviour in non-aversive ways (La Vigna & Donnellan 1986) relies heavily on a basic understanding of the defining characteristics of learning disabilities. For example, if staff are not aware that an individual with learning disabilities by definition does not have the intellectual capacity or skills to make an informed choice, they may not recognize their 'duty of care' to protect or support the individual in that particular area of their life.

DUTY OF CARE

When people with learning disabilities put themselves or others at risk, a duty of care, both ethical and legal, exists with regards to professionals involved in client care, i.e. 'They have a responsibility to take reasonable steps to protect the welfare of that person' (McKay 1991). On occasion, the obligation on staff to intervene in what is deemed

to be in the best interests of the client may override the personal preference of the client. Research suggests that the concept of duty of care may go unrecognized or may not be acted upon. Lyall et al. (1995) found that the tolerance of dangerous and antisocial behaviour of clients in some residential and day care provision in the Cambridge health district was high, with theft, criminal damage and sexual assault often going unreported. Similarly, Brown et al. (1994) and McCarthy & Thompson (1997) demonstrated that the sexual abuse of clients with learning disabilities is often dealt with haphazardly because staff are unclear about their roles and responsibilities. In addition, research indicates that care staff do not always intervene effectively in situations where clients place themselves at risk (Hastings et al. 1995).

Enabling client choice

The recognition of the importance of enabling client choice arose largely from the principle of normalisation (Wolfensberger 1972). Tyne & O'Brien (1981) developed this philosophy in relation to service provision, suggesting that a good service recognized and promoted the five accomplishments, i.e. choice, community presence, relationships, respect, and competence. Services for individuals with learning disabilities are increasingly being evaluated by these criteria (McGowan 1996; Murray et al. 1998). The role of a professional working with clients with learning disabilities may therefore represent a balance between maintaining clients' behaviour within certain parameters (duty of care) and an obligation to make choices available to clients to the extent that they can make valid decisions (enabling choice).

Behavioural management strategies

Increasingly, as individuals with more complex needs or challenging behaviour are discharged from hospitals, the demand on care and professional staff increases (Hill & Bruininks 1984). Modern psychological approaches (e.g. La Vigna & Donnellan 1986) attempt to modify challenging behaviour by the use of non-aversive strategies, for example, by teaching functionally equivalent skills or environmental manipulations. However, research suggests that direct care staff may lack the knowledge and understanding required to successfully deal with complex challenging behaviour. Hastings et al. (1995) found that inexperienced care staff were less likely to be aware of the causes of challenging behaviour and of current behaviour management approaches than experienced staff. A later study by Hastings (1996) found that immediate interventions by nursing staff were often counter-therapeutic.

Summary and aims of present study

Any professional group providing a service to people with a learning disability has a legal (Ward

1994), professional and moral obligation to have a knowledge of the characteristics and needs of that particular client group, as well as an awareness of their professional roles and responsibilities. Health professionals and social care staff constitute two of the largest groups involved in the care of people with learning disabilities. The present study therefore aims to examine the level of knowledge of these two groups in relation to their understanding of the term 'learning disabilities'. In addition, an examination is made of the relationship of this knowledge with (1) staff awareness of issues relating to duty of care and client choice; (2) aversive versus non-aversive behavioural management approaches.

METHOD

The study examined the views of two groups of staff: health care and social care. Health care staff were professionally qualified staff who provided a specialist service to people with learning disabilities within the following service settings:

1. as a part of a community learning disability team
2. a health service challenging behaviour unit
3. health service nursing home provision.

The professional groups included nursing, clinical psychology, psychiatry, speech and language therapy, occupational therapy, and physiotherapy. Social care staff were employed by the independent sector to provide direct day-to-day support for individuals with learning disabilities in community homes. None of this group held a professional qualification specifically related to working with people with learning disabilities.

Thirty-one staff members participated (health care staff = 14, social care staff = 17). All participants were asked to complete the questionnaire that asked the following:

1. how many years have you worked with individuals with learning disabilities?
2. what is your job title?
3. what is your understanding of the term 'learning disabilities'?

STYLE OF MANAGEMENT

The style of management with challenging behaviours was assessed by the use of two vignettes. Staff were invited to comment on how they would manage the two situations described below. Responses were coded by a rater to assess the extent to which the responses took into account the notion of duty of care and choice and indicated aversive versus non-aversive management techniques. In addition, responses were independently coded by two raters to give a measure of inter-rater reliability. The vignettes are reproduced below:

Vignette 1

Mark has a favourite shirt that he likes to wear when he attends the adult training centre. He attends this centre 5-days-a-week. By the end of the week the shirt is dirty and smelly. He is happy for the shirt to be washed at the weekend so that it is clean again for the following Monday. How would you deal with this situation?

Vignette 2

Lucy likes chocolate biscuits and will eat nothing else unless she is coerced. If pressure is put on her to eat other foods, she screams and bites herself. She is presently healthy and within the limits of normal weight. How would you deal with this situation?

The vignettes were chosen to reflect circumstances where there is a clear duty of care on the carers and the client is also expressing a preference. Raters scored each response to the vignettes in terms of the following:

- whether the respondent's strategy implicitly acknowledged duty of care, client choice or both
- whether the respondent's strategy was aversive or non-aversive.

Some examples of responses coded for each category are illustrated in Table 1.

Knowledge of the term 'learning disabilities'

Staff's responses to the question 'What is your understanding of the term 'learning disabilities'?' were assessed in relation to DSM IV criteria for learning disabilities, i.e. impaired intellectual functioning, impaired adaptive skills and childhood onset.

Examples of acceptable responses in relation to each of the DSM IV criteria are recorded below in Table 2.

Table 1 Examples of acceptable responses to vignettes

Management approaches	Example
Recognizing duty of care	'Wash his shirt quickly each night' 'Advice about health/diet'
Enabling choice	'Let him buy more shirts' 'Let her have the biscuits if she is healthy'
Aversive strategies	'Tell him off' 'Let her scream for the biscuits'
Non-aversive strategies	'Buy him five of his favourite shirts' 'Reward her for eating more healthy food'

Table 2 Examples of acceptable responses in relation to DSM IV criteria for learning disabilities	
Criterion	Example
Impaired intellectual functioning	'Low IQ' 'Not as clever as normal people'
Impaired adaptive skills	'Needs help with everyday tasks' 'Cannot do things without help'
Childhood onset	'Present from birth' 'Slow at school'

Method of scoring responses

Each of the variables was assigned either a score of one if the response made reference to it, or zero if it was not referred to. In addition, the three scores relating to the defining features of a learning disability were collapsed to give an overall level of knowledge score; this ranged between zero and three.

RESULTS

Inter-rater reliability

Table 3 illustrates the inter-rater reliability for responses to scenarios 1 and 2 in respect of the identified management approach.

As can be seen in Table 3, there was significant agreement between raters when analysing the responses to both scenarios.

Table 4 illustrates the inter-rater reliability for responses to the question 'What is your understanding of the term learning disability?' using DSM IV criteria as a comparator.

As can be seen in Table 4, there was significant agreement between raters for all three criteria.

Table 3 Inter-rater reliability for respondents' identified management approach

Management approach	Scenario 1		Scenario 2	
	Kappa	Significance level	Kappa	Significance level
Recognizing duty of care	0.92	< 0.01	1.00	< 0.01
Enabling choice	0.92	< 0.01	1.00	< 0.01
Non-aversive strategies	1.00	< 0.01	1.00	< 0.01
Aversive strategies	1.00	< 0.01	1.00	< 0.01

Table 4 Inter-rater reliability for respondents answers to the question 'What is your understanding of the term 'learning disabilities'?', using DSM IV criteria as a comparator			
Criterion	Kappa	Significance level	
Impaired intellectual functioning	1.00	< 0.01	
Impaired adaptive skills	0.87	< 0.01	
Childhood onset	1.00	< 0.01	

Experience

No significant difference was found between the mean number of years of experience of working with people with learning disabilities between the health and social care groups ($t = 1.26$; $df = 17.22$; $P = 0.22$). The experience of working with learning disabilities for the whole sample ranged from 3 months to 30 years, with a mean of 7 years and a standard deviation of 7 years, 2 months.

Knowledge of the criteria for learning disabilities

Table 5 illustrates the number and percentage of respondents in each staff group identifying each of the three criteria for a learning disability.

A χ^2 test demonstrated that the identification of all three criteria was independent of staff group. However, it is important to note that both the childhood onset criteria and the impaired intellectual functioning criteria had expected frequencies of less than five.

Table 6 illustrates the number and percentage of respondents in each group identifying 0, 1, 2 or 3 of the criteria for learning disabilities.

A Cochran's Q test illustrated that the frequency of correct responses differed significantly across the three criteria ($Q = 17.45$; $df = 2$; $P < 0.01$).

Three pair-wise comparisons demonstrated that significantly more individuals identified the impaired intellectual functioning criteria than the childhood onset criteria (bi-nominal; two-tailed; $P < 0.01$). In addition, significantly more individuals identified the impaired adaptive skills criterion than the childhood onset criterion (bi-nominal; two-tailed; $P < 0.05$).

Table 5 Number and percentage of respondents in each staff group identifying each of the three criteria for learning disabilities

Staff group	Criteria					
	impaired intellectual functioning		impaired adaptive skills		childhood onset	
	No.	%	No.	%	No.	%
Health	9	64.3	8	57.1	5	35.7
Social	14	82.3	7	41.2	2	11.8
Overall	23	74.2	15	48.4	7	22.6

Table 6 Number and percentage of respondents in each staff group identifying 0, 1, 2 or 3 of the criteria for a learning disability

Staff group	Number of criteria identified							
	0	1	2	3	0	1	2	3
	No.	%	No.	%	No.	%	No.	%
Health	3	21.4	4	28.6	3	21.4	4	28.6
Social	1	5.9	10	58.8	5	29.4	1	5.9
Overall	4	12.9	14	45.2	8	25.8	5	16.1

No significant difference was found between staff groups in relation to overall knowledge scores.

Management approach

Table 7 illustrates the number and percentage of respondents referring to each of the following management approaches in vignettes 1 and 2: recognizing duty of care, enabling choice, non-aversive strategies, and aversive strategies.

Vignette 1

A pair-wise McNemar test demonstrated that significantly more individuals identified a non-aversive strategy than an aversive strategy in response to Vignette 1 (bi-nominal; two-tailed; $P < 0.01$). This also held true for the health care group alone and the social care group alone.

Vignette 2

A pair-wise McNemar test found that, for the health group only, there was a significant difference between those identifying a non-aversive as opposed to an aversive approach (bi-nominal; two-tailed; $P < 0.05$).

A comparison of the responses of the health care staff and social care staff for vignettes 1 and 2 found that for vignette 2 the identification of duty of care was significantly associated with staff group ($\chi^2 = 5.23$; $df = 1$; $P < 0.05$), with the social care staff being more likely to identify duty of care than the health care staff.

Knowledge of the criteria for a learning disability and management approach

No significant differences were found overall between those identifying a particular management approach in vignettes 1 and 2 and the ability to identify the criteria for a learning disability. This also held true for health professionals alone in vignettes 1 and 2 and with social care staff alone in vignette 1. However, in vignette 2, a significant difference in knowledge of the criteria of a learning disability was found between those social care staff who

identified choice and those who did not ($t = 2.17$; $df = 15$; $P < 0.05$), with those who did not identify choice having identified more criteria of learning disabilities. Similarly, those social care staff who identified more of the criteria for learning disabilities were significantly more likely to identify aversive approaches in vignette 2 ($r = -2.36$; $df = 15$; $P < 0.05$).

Experience and management approach

For vignette 1, a significant difference was found between mean number of years of experience of those who identified a non-aversive approach and those who did not ($t = -2.18$; $df = 27.09$; $P < 0.05$), with those who identified non-aversive approaches being more experienced. No significant differences were found for vignette 2.

Experience and knowledge of the criteria for learning disabilities

No significant relationship was found between the years of experience of working with people with learning disabilities and knowledge of the criteria defining learning disabilities.

DISCUSSION

The present study found no significant differences between health and social care staff in respect of their knowledge of the criteria for learning disabilities. The most likely explanation for this finding is that the overall level of knowledge of the defining criteria of learning disabilities was not high in either group with only five respondents being able to identify all three criteria and four respondents being unable to name any. This was despite the scoring criteria erring on the side of allowing any answer that explicitly or implicitly referred to the criteria. This finding is in keeping with other studies that have found knowledge of relevant aspects of learning disabilities to be low in staff involved in their care (Allen et al. 1990; Sharrad 1992; Hastings & Remington 1994). The present study, however, indicates a lack of knowledge in two groups who exclusively provide a service to people with learning disabilities about the basic defining characteristics of learning disabilities. Around a quarter of respondents were able to identify two of the criteria for learning disabilities, typically impaired intellectual functioning and impairments in adaptive skills. These aspects of learning disabilities are arguably of more practical relevance for those working with clients on a day-to-day basis than the fact that the condition must occur in childhood. Many current interventions employed in working with people with learning disabilities tend to be of the 'here and now' variety, involving behavioural techniques (e.g. La Vigna & Donnellan 1986) or reflecting the relation-

Table 7 Number and percentage of respondents referring to each management approach

Vignette	Staff group	Recognizing duty of care		Management approach		Non-aversive strategy		Aversive strategy	
		No.	%	No.	%	No.	%	No.	%
1	Health	9	64.3	9	64.3	9	64.3	0	0
	Social	14	82.4	13	76.5	14	82.4	1	5.9
	Overall	23	74.2	22	71.0	23	74.2	1	3.2
2	Health	6	42.9	8	57.1	8	57.1	1	7.1
	Social	14	82.4	8	47.1	9	52.9	6	35.3
	Overall	20	64.5	16	51.6	17	54.8	7	22.6

ship between client and therapist (e.g. McGee et al. 1987). Both of these approaches are essentially ahistorical and would not make reference to developmental aspects of learning disabilities. The salience of particular criteria for learning disabilities may therefore be effected by the interventions that workers use, thus contributing to the relative lack of awareness of childhood onset as a feature of learning disabilities.

In respect of management approaches, the results suggest that the picture is not clear cut, with individuals overall being more likely to adopt non-aversive as opposed to aversive strategies. Social care staff were, however, more likely to identify strategies that recognize their duty of care although this only held true in vignette 2. In addition, no significant differences were found between those identifying a particular management approach and their ability to identify the criteria for learning disabilities. This mixed picture may reflect the fact that the majority of respondents attempted to employ strategies that recognized both duty of care and client choice. Responses also appeared to be affected by the vignettes themselves. In general, carers appeared less confident in managing the behaviour presented in vignette 2 where it is implied that the individual has a more severe learning disability. Suggestions often centred around trying to 'encourage' the client and were often vague or relied on explanations that a person with severe learning disabilities would be unlikely to comprehend. Detailed non-aversive behavioural interventions were absent from suggestions made. The fact that social care staff were more likely to identify approaches recognizing their duty of care in vignette 2 may be related to the implied severity of the learning disability and reflect their experience of having to deal with similar situations in a practical manner on a day-to-day basis.

In respect of the knowledge of the criteria for learning disabilities and management approaches, social care staff with greater knowledge of the criteria for learning disabilities were found to be more likely to identify approaches that were aversive in vignette 2. Although initially puzzling, a closer examination of responses illustrated that while the approaches were likely to be perceived as aversive by the client, they were also consistent with psychological approaches. For example, 'limit the number of biscuits that Lucy receives by rewarding her with them when she eats healthy foods'. Such a response recognizes the need to shape new, more adaptive behaviour by using rewards but was defined as aversive because the client would have experienced the removal of her biscuits as a punishment. While it is encouraging that workers attempted to devise strategies that were broadly based upon psychological principles, the application of these were sometimes misconceived.

The experience of staff would also appear to play a key role in relation to the adoption of non-

aversive approaches, with those staff who were more experienced being significantly more likely to identify non-aversive approaches. It is unclear, however, if this difference is due to staff having received more training during their career, or whether it is a result of knowledge picked up over time. The fact that few significant relationships were found between knowledge of the criteria for learning disabilities and the adoption of a particular management approach may reflect the general confusion that staff experience about striking the correct balance between recognizing a duty of care and enabling choice. This difficulty has been highlighted in a number of previous studies. Brown et al. (1994) and Lyall et al. (1995) both found that staff were confused about the correct balance between their roles and responsibilities as carers and the need to facilitate client choice. It may be that the more knowledge an individual has about the nature of learning disabilities, the more confusing these potentially conflicting demands become. This has a number of implications outlined below.

The present study highlighted the low level of knowledge of the defining features of learning disabilities in both health care and social care staff. These two groups are, with the exception of families, the main providers of care and support for people with learning disabilities. While the role of both groups may differ in emphasis, with health professionals tending to provide more specialized and health related input, and social care staff providing direct care and day to day support, it would appear imperative that both groups are aware of the defining features and characteristics of the client group within their remit. As well as being a legal obligation (Ward 1984), this is fundamental to service development and care planning processes. A lack of knowledge among care staff relating to challenging behaviour has been found to impact on morale, staff turnover and client behaviours (Allen et al. 1990; Sharrad 1992; Hastings & Remington 1994). It is likely that the failure to fully appreciate the cognitive and behavioural limitations which are associated with learning disabilities will make it more difficult for staff to identify how these features impact on the expression of challenging behaviour and everyday client functioning.

While the assessment of the criteria that determines the diagnosis of learning disabilities has traditionally been the remit of psychologists (Burton 1997), the present study would suggest the need to remind all staff involved in the care of people with learning disabilities about the basic defining characteristics of the clients they work with and what this may mean for them in their day-to-day functioning.

The present study does, however, have a number of limitations. Firstly, results were based on respondents written answers in relation to a questionnaire. It is likely that this method accurately reflected respondents knowledge regarding the criteria of

learning disabilities as they would be unlikely to withhold such information. However, the publicly expressed attitudes may not reflect their actual opinions (Aronson 1995). Just as public and private attitudes may differ, so may an individual's attitude differ from actual behaviour (Ajzen & Fishbein 1980). It is assumed in the present study that respondents have described courses of action similar to those that they would follow in real life. However, as noted earlier, many responses were vague or would have been difficult to put into practice. It is likely that a truer picture would have been obtained by observing staff as they worked and relating this to levels of knowledge. The authors hope to adopt such an approach in future studies to help clarify this issue. Finally, the sample sizes of each group may have masked differences between health and social care staff that would be apparent in a larger sample.

In summary, the present study found that knowledge of the criteria for learning disabilities was limited in both health and social care staff. Most respondents attempted to adopt management approaches that reflected both a recognition of a duty of care and the need to enable client choice and which were non-aversive. No significant differences were found between the two groups in terms of experience or level of knowledge. Overall, few differences were found in relation to the tendency to adopt a particular management approach.

REFERENCES

- Ajzen I, Fishbein M 1980 *Understanding Attitudes and Predicting Social Behaviour*. Prentice Hall
- Allen P, Pahl J, Quine L 1990 *Care Staff in Transition: the Impact on Staff of Changing Services for People with Mental Handicap*. HMSO, London
- American Psychiatric Association 1995 *Diagnostic and Statistical Manual of Mental Disorders*, 4th Ed. APA, Washington DC
- Antonak R F, Fiedler C R, Mulick J A 1989 *Misconceptions Relating to Mental Retardation*. *Mental Retardation*, 27(2)
- Aronson J. In: Lyndzey M, Aronson J 1985 *Handbook of Social Psychology*. John Wiley, Chichester
- Brown H, Hunt N, Stein J 1994 Alarming but very necessary: working with staff groups around the sexual abuse of adults with learning disabilities. *Journal of Intellectual Disability Research* 38(4): 393-412
- Burton M 1997 Intellectual disability: developing a definition. *Journal of Learning Disabilities for Nursing, Health and Social Care* 1(1): 37-43
- Hames A 1996 The effects of experience and sexual abuse training on the attitudes of learning disability staff. *Journal of intellectual disability research* 40(6): 34-43
- Hastings R P, Remington B 1994 Staff behaviour and its implications for people with learning disabilities and challenging behaviours. *British Journal of Clinical Psychology* 33: 423-438
- Hastings R P, Remington B, Hopper G M 1995 Experienced and inexperienced health care workers beliefs about challenging behaviours. *Journal of Intellectual Disability Research* 39(6): 22-34
- Hastings R P 1996 Staff strategies and explanations for intervening with challenging behaviours. *Journal of Intellectual Disability Research* 40(2): 166-175
- Henry D, Keys C, Balcazar F, Jopp D 1996 Attitudes of community-living staff members towards persons with mental retardation, mental illness and dual diagnosis. *Mental Retardation* 34(6): 13-19
- Hill B K, Bruininks R H 1984 Maladaptive behaviour of mentally retarded individuals in residential facilities. *American Journal of Mental Deficiency* 88: 380-387
- La Vigna G W, Donnellan A M 1986 *Alternatives to punishment: solving behaviour problems with non-aversive strategies*. Irvington, New York
- Lyall I, Holland A J, Collins S 1995 Offending by adults with learning disabilities and the attitudes of staff to offending behaviour. *Journal of Intellectual Disability Research* 39(6): 22-31
- McCarthy M, Thompson D 1997 A prevalence study of adults with intellectual disabilities referred for sex education. *Journal of Applied Research in Intellectual Disabilities* 10(23): 105-124
- McGee J, Menolascino F J, Hobbs D C, Menousek P E 1987 *Gentle teaching: a non-aversive approach to helping persons with mental retardation*. Human Sciences Press, New York
- McGowan C 1996 A long way from home. *Health Service Journal* April: 28-30
- McKay C 1991 Sex, laws and red tape: Scots law, personal relationships and people with learning difficulties. *Scottish Society for the Mentally Handicapped*, Glasgow
- Murray G C, McKenzie K, Kidd G R, Lakhani S, Sinclair B 1998 The five accomplishments: a framework for obtaining customer feedback in a health service community learning disability team. *British Journal of Learning Disabilities* (in press)
- O'Brien J 1992 Developing high quality services for people with developmental disabilities. In: Bradley V J, Bersani H A (Eds). *Quality Assurance for Individuals with Developmental Disabilities*. Paul Brookes, Baltimore
- Slevin E 1995 Student nurses attitudes towards people with learning disabilities. *British Journal of Nursing* 4(143): 761-766
- Sharrad H E 1992 Feeling the strain: job stress and satisfaction of direct-care staff in the mental handicap service. *British Journal of Mental Subnormality* 7: 32-38
- Tyne A, O'Brien J 1981 *The principles of normalisation*. Campaign for Mentally Handicapped People. Campaign for Mental Handicap Education and Research Association (CCMH/CMHERA), London
- Ward A D 1984 Scots law and the mentally handicapped. *Scottish Society for the Mentally Handicapped*, Enable
- Wolfensberger W 1972 *The principle of normalisation in human services*. National Institute of Mental Retardation, Toronto

Enabling carers to access specialist training in breakaway techniques: a case study

T. Green, J. Wray

The British Paediatric Association (1994) has estimated that in an 'average' population of 250 000 people, there will be 200 children with severe learning disabilities. Of these children, the number with behaviour difficulties has been estimated to be higher than that of the rest of the population (Saxby & Morgan 1993). Behaviour difficulties are considered a major source of stress for parents and carers (Quine & Pahl 1985; Quine 1986). The effect upon the family, the carers and the child are considered complex and bi-directional (Dyson 1993; 1996).

This paper explores the experience of one family, whose child had Prader-Willi Syndrome and severe behaviour difficulties, and the process undertaken to access specialist training in 'Breakaway' training. Prader-Willi Syndrome has been associated with a range of behaviour difficulties including hyperphagia and food preoccupation, temper tantrums, stubbornness, lability, impulsivity, argumentativeness, depression, anxiety and repetitive behaviours (Dyken & Kasari 1997). An escalation of the child's aggressive outbursts had necessitated intervention and the traditional methods of behaviour management had proven insufficient during episodes of crisis. To ensure the safety of both the parents and the child, access to training in 'Breakaway techniques' for the carers was procured, at the carers request. This paper concentrates upon the difficulties encountered during this process, both for the family and the professionals involved.

All names and locations identified in this paper have been changed to protect the anonymity of the individuals involved.

INTRODUCTION

Two and a half per cent of the population have been estimated to have some degree of learning disabilities and that 0.6% of children will have severe learning disabilities (Mental Health Foundation 1997). The prevalence of behaviour difficulties in children with learning disabilities has been estimated to be higher than that of the rest of the population (Saxby & Morgan 1993). In addition, the occurrence of behaviour difficulties has also been shown to increase exponentially with the increasing severity of the learning disability (Murphy 1994).

In Quine's (1986) study that comprised a sample of 200 5–18 year olds, a range of behaviour

difficulties were found including those listed in Table 1.

In this study, a significant association was found between behaviour difficulties and incontinence, lack of self-help skills, poor reading, writing and counting skills, and poor communication. Kiernan & Kiernan (1994) have looked at challenging behaviour in 68 schools for children with severe learning disabilities. Over 8% of pupils were identified as 'extremely' or 'very' difficult to manage, and a further 14% presented challenges of a lesser nature. Projected to a national level these figures suggest that around 2000 pupils in England and Wales will present a serious challenge, and a further 3400 a lesser challenge.

There are about 360 000 children with disabilities

Tina Green RNMH, DipHE Community Learning Disability Nurse, Hull and Holderness Community NHS Trust, Hull HU2 8TD. **Jane Wray** RGN, BA, HETC, Research Associate, The East Yorkshire Learning Disability Institute, University of Hull, Hull, HU6 7RX, UK.

Correspondence to JW.

Paper accepted
2 December 1998

Health and social care workers' understanding of the meaning and management of challenging behaviour in learning disability services

**K. McKenzie, S. McIntyre, E. Matheson,
G. C. Murray**

The present study sought to investigate the relationship between professional background, length of experience, understanding of the term 'challenging behaviour' and opinions of factors important in managing challenging behaviour in people with learning disabilities. Health workers identified significantly more definition criteria than social care workers, yet no significant difference was found between their overall scores for management criteria. Rather, the emphasis of their knowledge of management principles appeared to be different. A significantly greater percentage of health workers identified management criteria relating to psychological principles, while a greater percentage of social care workers identified that of reactive responses. Health workers seemed more likely to identify challenging behaviour in terms of its impact on the service while social care workers appeared to concentrate on the type of behaviour evident. Finally, the longer the experience of the social care worker, the higher their overall scores for the definition and management criteria. However, no significant relationship was found between experience and overall scores amongst health workers. Implications of the findings are discussed.

INTRODUCTION

Defining challenging behaviour

The phrase 'challenging behaviour' has become part of the everyday language in the field of learning disability (Thurman 1997). The term originally arose to emphasize that the challenge was for services to meet the needs of individuals with learning disabilities, rather than the difficulties purely residing in the individuals themselves. This was articulated by Emerson et al. (1988) who defined severe challenging behaviour as 'behaviour of such intensity, frequency, or duration, that the physical safety of the person or others is placed in serious jeopardy, or behaviour which is likely to seriously limit,

or deny access to and use of ordinary community facilities' (Emerson et al. 1988, cited in Hastings & Remington 1994a).

However, Wing (1996) notes that the term 'challenging behaviour' can often be misinterpreted or misapplied, being seen as referring to behaviour that is deliberately awkward and defiant. Similarly, Cheseldine & Stansfield (1993) note that the term is used interchangeably with 'problem behaviour', resulting in labels that the individual finds difficult to shake off. This may also result in challenging behaviour being identified according to its behavioural topography (Hastings et al. 1997), e.g., self-injury, aggression and stereotyping. These difficulties may reflect a lack of clarity on the subject, with

Karen McKenzie, Consultant Clinical Psychologist, **Sharon McIntyre**, Trainee Clinical Psychologist, **Edith Matheson**, Assistant Psychologist, Edenhall Hospital, Musselburgh, East Lothian, **George C. Murray**, Consultant Clinical Psychologist, Dingleton Hospital, Melrose, UK.

Correspondence to KMCK.

Paper accepted:
3 November 1998

that staff often commented that they felt that more activities were community-based; with the evaluations, this increase was quantified and presented graphically. Such a presentation means that staff can make changes in service delivery, which can be visually monitored.

The combination of staff-completed activity diaries and group engagement observations by an independent observer, increases the level of reliability of the evaluation. A number of observations were conducted in sessions that were covered by the activity diaries, thus the two methods could be compared to determine their accuracy.

In conclusion, the data shows that realistic useful evaluations can be made of services without involving a specialist or intensive 'research effort' that is not sustainable. For example, by surveying a sample of clients attending the unit, an overview of the range of activities, their community participation and engagement was obtained. Using a cohort may be advisable in a service already over-loaded with administrative duties.

Overall the results show that it is possible to provide meaningful and valued day time experiences for people whatever their level of disability, and that these can be provided to promote normalization.

REFERENCES

- Allen D 1990 Evaluation of a community-based day service for people with profound mental handicaps and additional special needs. *Mental Handicap Research* 3(2): 179-195
- Department of Health 1989 *Caring for People*. HMSO, London
- Emerson E, Beasley F, Offord G, Mansell J 1992 Specialised housing for people with seriously challenging behaviours. *Journal of Mental Deficiency Research* 36: 291-307
- Emerson E, Hatton C, 1994 *Moving Out - Relocation from Hospital to Community*. HMSO, London
- Felce D, Perry J 1995 The extent of support for ordinary living provided in staffed housing: the relationship between staffing levels, resident characteristics, staff:resident interactions and resident activity patterns. *Social Science and Medicine* 40(6): 799-810
- Fleming I, Stenfort-Kroese B 1990 Evaluation of a community care project for people with learning difficulties. *Journal of Mental Deficiency Research* 34: 451-464
- Murphy G 1987 Direct observation as an assessment tool in functional analysis and treatment. In: Hogg J, Raynes N V (Eds). *Assessment in Mental Handicap: A Guide to Assessment Practices, Tests and Checklists*. Croom Helm, London
- Nally B, Steele J 1992 Policy, organisation and practice in the provision of community services for people with intellectual disabilities. In: Thompson T, Mathias P (Eds). *Standards and Mental Handicap - Keys to Competence*. Ballière Tindall, London
- National Development Group for the Mentally Handicapped 1977 *Day Services for Mentally Handicapped Adults*, Pamphlet No. 5. NDGMH, London
- O'Brien J 1986 A guide to personal futures planning. In: Bellamey G, Wilcox B (Eds). *A Comprehensive Guide to the Activities Catalog: An Alternative Curriculum for Youth and Adults with Severe Disabilities*. Paul H. Brookes, Baltimore
- Risley T R, Cataldo M F 1973 *Planned Activity Check: Materials for Trained Observers*. Lawrence: Kansas Centre for Applied Behaviour Analysis, Kansas
- Robson C 1995 *Real World Research - A Resource for Social Scientists and Practitioner - researchers*. Blackwell, Oxford
- Seed P 1988 *Day Care at the Crossroads: An Evaluation of the Local Authority Contribution to Day Care Services for Adults with Mental Handicaps in Scotland*. Costello: Tunbridge Wells
- Social Services Inspectorate 1992 *Caring for Quality in Day Services*. HMSO, London
- Sparrow S S, Balla D A, Cicchetti D V 1984 *Vineland Adaptive Behavior Scales - Interview Edition - Survey Form*. American Guidance Service, Minnesota
- Sutcliffe J 1990 *Adults with Learning Difficulties - Education for Choice and Empowerment: A Handbook of Good Practice*. NIACE, Open University Press
- Wilkinson J 1989 Assessing the challenge: development of the Challenging Behaviour Scales. *Mental Handicap Research* 2(1): 86-104
- Wolfensberger W, Thomas S 1983 *Program Analysis of Service Systems' Implementation of Normalization Goals: Normalization Criteria and Ratings Manual (2nd ed)*. NIMR, Ontario

an ongoing debate about the terminology taking place (Thurman 1997). Despite these concerns the term 'challenging behaviour' does implicitly acknowledge that the behaviour has a function for the individual in expressing an unmet need (Thurman 1997).

The need to recognize the role that services may have in both ameliorating and maintaining challenging behaviour has become more important with the changes in service provision for individuals with learning disabilities (McGill & Mansell 1995). Over the past decade this has involved a transfer from hospital-based settings to community-based settings (Hastings & Remington 1994a). As a consequence, the day-to-day support of people with learning disabilities has changed from largely being the remit of health professionals to that of social care staff. As more individuals with complex needs and challenging behaviour are discharged from hospital settings, the demand on care staff will increase, with Hill & Bruininks (1984) noting that over half of the community staff in their study were required to support individuals with challenging behaviour. Both health and social care staff share the goal of supporting people with learning disabilities. However, they may differ in the type and amount of training they have received, and experience of working with this client group.

Thus, in tandem with this change in service provision has come an increasing recognition of the complexity of the influences on challenging behaviour. In particular, increasing emphasis has been placed on the role of those who support people with learning disabilities. Some of these influences are outlined below.

BEHAVIOUR IN CONTEXT: THE IMPACT OF OTHER PEOPLE ON CHALLENGING BEHAVIOUR

The attitudes, knowledge and behaviour of social care and health professionals can directly impinge on the expression of challenging behaviour in a number of ways. These include: affecting the self-concept of the individual being supported (Paris 1993); the way services are organized and delivered (Slevin & Sines 1996) and the quality of the service delivered. As a result, research has increasingly begun to focus on specific factors that may impact on staff and carers' understanding and management of challenging behaviour.

In general, a number of studies have found that increased experience of working with individuals with learning disabilities leads to more positive attitudes (Slevin 1995; Antonak et al. 1995). In relation to challenging behaviour, it has been found that experienced staff differ from inexperienced staff in relation to their attributions about the causes of challenging behaviour (Hastings et al. 1995) with experienced staff being more likely to iden-

tify environmental, emotional and biological factors as causes (Hastings et al. 1997). Such differences in attributions may lead to different staff responses to the same incident of challenging behaviour.

Social Interaction and Client Contact

Allen (1994) argues that the availability and range of opportunities for individuals to engage in constructive activity and interaction impacts significantly on the image and competence of those labelled as having challenging behaviour. The move to community care has been found by some researchers to have resulted in an increase in the amount of contact and interaction between carers and clients and has highlighted differences between clients living in the community and in residential settings (Felce & Repp 1992; Hemming et al. 1981; Mansell & Beasley 1990), although increased contact is not found across all community-based services (Abraham et al. 1991). The changes in social contact have been noted by Hastings & Remington (1994a) to relate to challenging behaviour in two possible ways: increased attention may reinforce challenging behaviour, while decreased contact may lead to clients engaging in self-stimulatory activities (stereotypy or self-injury). In addition, increased contact can be counter-habilitative if the quality of staff interactions are poor (Hastings & Remington 1994a) or do not contribute to the individual learning more adaptive ways of expressing their needs (Hile & Walbran 1991). Thus the relationship between social contact and challenging behaviour is complex.

STAFF RESPONSES TO THE MANAGEMENT OF CHALLENGING BEHAVIOUR

The capability of services in responding to challenging behaviour relies on staff's ability to react safely and appropriately to the occurrence of episodes of challenging behaviour, devise interventions based upon clearly articulated beliefs about the function of the behaviour for the individual and implement long-term alternative strategies to meet the individuals needs (Department of Health 1993).

Research has therefore focused on these three main areas:

1. reactive responses
2. psychological principles
3. positive programming.

1. Reactive responses

The manner in which care staff initially react to challenging behaviour may influence the behaviour itself and vice versa (Hastings & Remington 1994a). Self-injurious behaviour and aggression have been shown to elicit strong negative emotions in staff

(Hastings & Remington 1994b). Bromley & Emerson (1995) noted that care staff report emotions such as anger, despair, annoyance, sadness and disgust in response to episodes of challenging behaviour. These responses seemed to be related to the unpredictability of behaviour, difficulty in understanding the behaviour, the daily routine of caring and not being able to see a plan for moving forward.

Staff responses are of particular importance, given that the consequences of behaviour can decrease or increase the behaviour (Donnellan et al. 1988) and may contribute to the success or failure of behavioural interventions (Hastings and Remington 1994a).

The effective use of protective reactive strategies is important, especially when dealing with clients whose behaviour is self-injurious or aggressive towards others. Self-protection strategies are important to ensure the safety of the carer; however, staff also have a duty of care to clients in their care (McKay 1991). In such situations professionals and carers are obliged to intervene for the benefit/protection of the client, even if this means going against the client's personal preferences. Research indicates that care staff do not always intervene effectively in situations where the client may be at risk (Hastings et al. 1995).

2. Psychological principles

Hastings & Remington (1994b) note that challenging behaviour can have different and multiple causes and functions, for example environmental, programmatic, instructional or communicative (Donnellan et al. 1988). Thus understanding the function of the behaviour and knowledge of basic behavioural principles forms a fundamental basis to understanding the challenging behaviour and formulating appropriate management strategies (Donnellan et al. 1988).

3. Positive programming

Positive programming is the process whereby, following the function of the behaviour being determined, alternative, constructive behaviour is implemented enabling the client to achieve or communicate the same function. This may include:

- teaching a new behaviour
- substituting different ways of communication
- teaching alternative behaviours
- giving meaning to behaviour whose meaning at the time may seem unclear. In this way the behaviour is shaped into a communication that can then gradually be replaced by a new method of communication (Donnellan et al. 1988).

The combination of the development of appropriate and safe reactive strategies, functional analysis of the behaviour using psychological principles and the implementation of a positive programming

approach tailored to the individual's needs, offers an effective response to challenging behaviour.

SUMMARY

By definition challenging behaviour challenges the service to determine the unmet needs of the individual. The complexity of the factors that may influence the successful analysis and management of challenging behaviour have been outlined. One key factor is the knowledge, attitude and approaches of staff and carers towards challenging behaviour. With the exception of families, the health and social care professions are the two groups most likely to provide regular support and input to those individuals displaying challenging behaviour.

The present study, therefore, sought to investigate the relationship between professional background, length of experience, understanding of the term 'challenging behaviour' and opinions on factors important in managing challenging behaviour in individuals with a learning disability.

METHOD

Questionnaires were given to two main groups with whom staff came into contact as part of their routine clinical work.

The study examined the view of two groups of staff: health care ($n=23$) and social care ($n=72$), giving a total sample size of 95. Health care workers were professionally qualified National Health Service staff who were employed to provide a specialist service to people with learning disabilities within the following settings:

1. a community learning disability team
2. a health service challenging behaviour unit
3. a health service nursing home provision.

The professional groups included nursing, clinical psychology, psychiatry, speech and language therapy, occupational therapy and physiotherapy. Social care staff were employed by the independent sector or social work department to provide direct day care to individuals with learning disabilities in residential or day care settings.

Participants were assured that participation was voluntary and their responses were anonymous. All those approached agreed to participate, giving a response rate of 100%. Questionnaires were completed in the presence of the authors and contained the following questions:

- a) What is your understanding of the term 'challenging behaviour'?
- b) What do you think the most important factors are in managing challenging behaviour?

In addition carers were asked to give the number of years experience they had in the field of learning

disabilities and indicate their professional background.

Understanding of the term 'challenging behaviour'

Two raters scored each response to the first question regarding the understanding of the term 'challenging behaviour' in terms of those factors consistently identified in the literature as relating to the definition of challenging behaviour, i.e.,

- a) topography, e.g., aggression, self-injury, stereotypy
- b) safety – of the client or other individuals
- c) limited access to community resources
- d) behaviour that the community or worker found it difficult to cope with.

In addition each response was assigned an overall score from 0 to 4, depending on how many of the categories above were mentioned.

Table 1 gives example of responses and scores in relation to the question 'What is your understanding of the term 'challenging behaviour'?'

Managing challenging behaviour

Responses to the question 'What are the most important aspects in relation to dealing with challenging behaviour?' were scored by two raters in terms of:

- a) Reactive responses, e.g. issues relating to safety and protection, a need to be calm etc.
- b) Psychological approach and principles, e.g. function of behaviour, consistency, reinforcement, triggers etc.

- c) Positive programming – implementation of long term skills as an alternative to problem behaviour.

Responses were also assigned an overall score from 0 to 3 depending on how many of the categories above were included in the response.

Table 2 gives examples of responses and scoring criteria in relation to 'managing challenging behaviour'.

RESULTS

Inter-rater reliability

All responses were analysed by two raters to determine inter-rater reliability. Results were analysed using the κ statistical procedure. Inter-rater reliability for all four 'definition' and all three 'management' criteria were found to have κ values of 0.91 or above ($P < 0.01$). Thus there was a significant agreement between raters for all four 'definition' criteria, and all three 'management' criteria.

Understanding of the term 'challenging behaviour'

Figure 1 illustrates the percentage of health professionals and social care workers identifying each category in response to the question 'what is your understanding of the term "challenging behaviour"?'

Figure 2 illustrates the percentage of each professional group identifying none, one, two, three or four of the categories in response to the question 'what is your understanding of the term "challenging behaviour"?'

Table 1 Examples of responses and scoring criteria in relation to 'understanding of challenging behaviour'

Example	Score	Reason
Behaviour that may be unpredictable or aggressive	1	One category is described, that of topography
Any behaviour that a service has difficulty in dealing with/responding to	1	One category is described, that which the community finds it difficult to cope with.
Behaviour that results in harm to self or others, which causes stress or prevents use of community resources	3	Three categories indicated – topography, safety and access to community resources

Table 2 Examples of responses and scoring criteria in relation to 'managing challenging behaviour'

Example	Score	Reason
Be consistent with your behaviour	1	One category indicated, that of psychological principle
Proper assessment of its function. Consistent staff approach to the agreed course of action	1	Psychological principle approach
Does the behaviour fulfil a function? If so can an alternative be introduced to replace the behaviour	2	Two categories indicated, namely psychological principle and positive programming
All responses were analysed by two independent raters to give a measure of inter-rater reliability.		

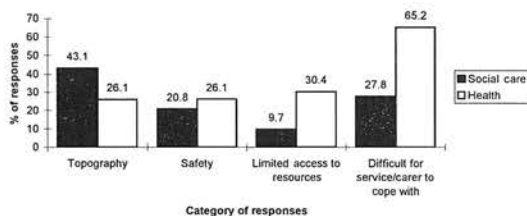


Fig. 1 Category of responses identified by each professional group.

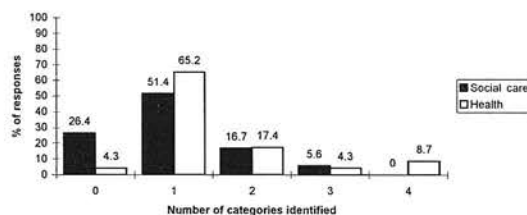


Fig. 2 Number of categories identified by each professional group.

Comparison of responses between social care and health professionals

Category identified

A χ^2 test demonstrated that the identification of category 4 (behaviour that the community or worker found difficult to cope with) was significantly associated with the professional group ($\chi^2 = 10.5$, $df = 1$, $P < 0.01$), with the health group more likely to identify this criteria.

Number of categories identified

An independent samples *t*-test found a significant difference between the mean scores for the two groups ($t = 2.26$, $df = 93$, $P < 0.05$), with the health group identifying more criteria than the social care group.

Categories identified within the social care group

A Cochran's Q test was conducted which demonstrated that the frequency of identified responses differed significantly across the four definition criteria ($Q = 21.25$, $df = 3$, $P < 0.01$), with individuals being more likely to refer to topography than safety ($\chi^2 = 6.62$, $P < 0.05$) or limiting access to resources ($\chi^2 = 17.63$, $P < 0.01$).

Categories identified within the health care group

A Cochran's Q test was conducted which demonstrated that the frequency of correct responses differed significantly across the four definition criteria ($Q = 10.69$, $df = 3$, $P < 0.05$), with individuals being more likely to refer to challenging behaviour as something the service/carer found difficult to deal with than topography (binomial; 2-tailed $P < 0.05$) or safety (binomial; 2-tailed $P < 0.05$).

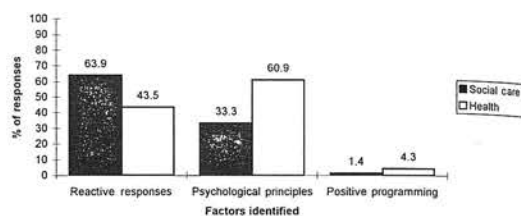


Fig. 3 Factors identified as important in dealing with challenging behaviour by each professional group.

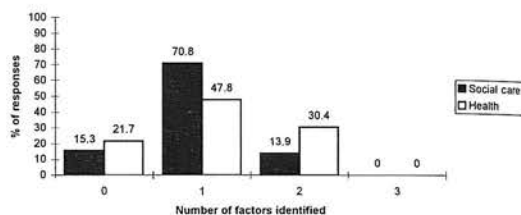


Fig. 4 Number of categories identified by each professional group.

Factors identified as important in dealing with challenging behaviour

Figure 3 illustrates the percentage of each professional group identifying each of the three management factors as important in dealing with challenging behaviour.

Figure 4 illustrates the percentage of each professional group identifying none, one, two or three of the 'management' factors as important in dealing with challenging behaviour.

Comparison of responses between social care and health professionals

Factors identified as important in dealing with challenging behaviour

A χ^2 test demonstrated that the identification of the factor, psychological principle, was significantly associated with the professional group ($\chi^2 = 5.51$, $df = 1$, $P < 0.05$), with a higher percentage of health professionals identifying this criteria, than social care staff.

Number of factors identified

An independent samples *t*-test demonstrated that there were no significant differences between the mean scores for the two professional groups (unequal $t = 0.61$, $df = 30.12$, $P = 0.547$).

Factors identified as important in managing challenging behaviour within the social care group

A Cochran's Q test was conducted which demonstrated that the frequency of identified responses differed significantly across the three categories ($Q = 49.80$, $df = 2$, $P < 0.01$) with social care workers being significantly more likely to identify reactive responses than psychological principles ($\chi^2 = 8.48$; $P < 0.01$) or positive programming ($\chi^2 = 41.19$, $P < 0.01$).

Factors identified by Health Professionals

A Cochran's Q test demonstrated that the frequency of responses differed significantly across the three factors ($Q = 14.78$, $df = 2$, $P < 0.01$) with health professionals being significantly more likely to identify reactive responses than positive programming approaches (binomial, 2-tailed $P < 0.05$). The majority (60.9%), however, identified psychological principles as important in dealing with challenging behaviour.

Experience and Professional Group

T-tests for independent samples demonstrated a significant difference in the mean number of years of experience between the two groups ($t = -3.70$, $df = 93$, $P < 0.01$), with health workers having worked longer on average (mean = 10.35) than social care workers (mean = 5.28).

Experience and identification of 'definition' and 'management' factors in relation to challenging behaviour

A Pearson Correlation revealed significant relationships between the experience of social care workers and their 'definition' score ($r = 0.33$, $P < 0.01$), and their 'management' score ($r = 0.31$, $P < 0.01$). The more experience the workers had the more categories were identified both for understanding of challenging behaviour, and factors important in dealing with challenging behaviour.

A Pearson Correlation revealed no significant relationships between the experience of health care workers and their 'definition' score, or their 'management' score.

DISCUSSION

Health workers were found to identify significantly more aspects of the concept 'challenging behaviour' than social care workers. This might be expected as the work of health staff is largely more specialist in nature, involving more emphasis on detailed assessment and treatment of clients referred for challenging behaviour (Greig & Peck 1998).

This knowledge and experience, however, did not always seem to translate into greater knowledge in terms of management skills. This was suggested as no significant difference was found between the two groups for their overall score on management criteria. Rather, the emphasis of where that knowledge lies appears to be different. A significantly greater percentage of health workers identified psychological principles as being of greatest importance in managing challenging behaviour, while a greater percentage of social care workers identified initial reactive responses. This may largely be the result of the involvement each professional

group has in dealing with challenging behaviour. Social care staff are likely to be with their clients for long periods and are likely to be most concerned with 'here and now' strategies that can be implemented at the time challenging behaviour is displayed to avoid harm to the staff and clients. In addition they may have a lower level of knowledge of behavioural principles (Aitken et al. 1993).

Health professionals on the other hand are likely to be involved in the longer term strategies of managing challenging behaviour (Greig et al. 1996; Taylor et al. 1996). The application of psychological and behavioural principles is likely to have been part of the formal training received by most health professionals dealing with challenging behaviour in learning disability services. It would therefore appear that health workers knowledge may be based on the understanding of psychological principles as a result of training. However, the social care workers response seems to be one that has been learned through experience, and to maintain personal and client safety. Interestingly, very few health and social care workers mentioned positive programming approaches to challenging behaviour. It appears that workers tend to focus on controlling the challenging behaviour without helping the individual to replace it with a more appropriate, alternative behaviour.

Health workers seemed more likely to identify challenging behaviour in terms of its impact on the service. On the other hand social care workers appeared to concentrate on the type of behaviour evident – topography. This echoes observations by Hastings et al. (1997) who note that challenging behaviour is often recognized by its topography. Hastings & Remington (1994c) argue that staff can make attributions about challenging behaviour based on information most readily available to them. They note that this may often be the topography as it is often the most unambiguous dimension. Cheseldine & Stansfield (1993) and Wing (1996) have also observed this tendency to use the terms 'challenging behaviour' and 'problematic behaviour' interchangeably, voicing concern that it may result in labels for individuals that are difficult to shake off. It appears that health workers are more focused on how the service can help. Hence they seem to interpret the term 'challenging behaviour' in terms of its challenge to the service, rather than focusing on the problematic nature of the behaviour.

Health workers had significantly longer experience than social care workers. Interestingly, the longer the experience of the social care worker, the higher their overall scores for the definition and management criteria. McKenzie et al. (1998b) also found that the more experience that individuals had the greater their knowledge of the criteria for a learning disability. Increased contact with people with learning disabilities has also been found in previous studies to lead to increased knowledge of types of intervention (Bromley & Emerson 1995).

and improved quality of day-care provision (Munton et al. 1995).

However, no significant relationship was found between experience and overall scores amongst health workers. This could be understandable in that social care workers do not have as much formal training as health workers, hence they may learn more by experience. Health workers on the other hand usually enter the profession following formal training, hence experience is not the main or only avenue of learning about or understanding challenging behaviour. Previous research has found training to be a valuable avenue for increasing knowledge amongst those working in the field of learning disabilities (Kobe & Mulick 1995; Nagarajaiah et al. 1994; Morch & Eikeseth 1992; Wilson et al. 1991; Allen et al. 1997).

In examining services deemed as excellent Mansell (Department of Health 1993) found that they invested heavily in training direct care staff with an emphasis on training all staff and training them all together (Johnstone 1988). Taylor et al. (1996) conducted research where a psychologist gave ongoing consultation regarding functional assessment and adhering to behavioural techniques to staff working with a client who exhibited high levels of self-injury. They found that this intervention resulted in a significant decrease in the client's challenging behaviour.

Implications for training

A number of health professionals have a valuable mix of formal training and practical experience and may be in a position to assist in the training of social care staff and in applying and monitoring the practical application of principles when working with clients. However, it has been noted that such input must take into account the context in which social care staff work, and an understanding of existing staff knowledge and beliefs (Fitzsimmons & Barr 1997). Staff supporting an aggressive client may require input on initial reactive strategies to maintain personal and client safety, before they can consider longer-term strategies.

Similarly, misplaced or superficial training that does not meet the needs of staff can reinforce negative attitudes and stereotypes (May et al. 1994). However, it would, appear that both social care and health professionals need reminding about the value of longer-term positive programming approaches to ensure that client needs are met in alternative, appropriate ways.

The above study does, however, have a number of limitations. The most obvious is that the results were based on respondents' written responses to a questionnaire. It is likely that this accurately reflected respondent's understanding of 'challenging behaviour'. However, the approaches identified as important in dealing with challenging behaviour may not be those that staff use in practice. Hastings

& Remington (1994) have found discrepancies between staff reports about responses to challenging behaviour and observational studies that reflect actual responses.

The present study does, however, differ from the above in that it aimed to examine staff beliefs about what factors were important in managing challenging behaviour, rather than how staff actually responded. This gives some indication of where the need for staff training lies.

CONCLUSION

In conclusion the present study examined the level of knowledge of social care and health professionals in terms of their understanding of the term 'challenging behaviour' and its management. Health workers identified significantly more definition criteria than social care workers, yet no significant difference was found between their overall scores for management criteria. Rather, the emphasis of their knowledge of management principles appeared to be different. A significantly greater percentage of health workers identified psychological principles as important in managing challenging behaviour, while a greater percentage of social care workers emphasized reactive responses. Very few health and social care workers mentioned positive programming in the management of challenging behaviour. Health workers seemed more likely to identify challenging behaviour in terms of its impact on the service while social care workers appeared to concentrate on the type of behaviour evident. Lastly, the longer the experience of the Social Care Worker, the higher their overall scores for the definition and management criteria. However, no significant relationship was found between experience and overall scores amongst health workers. Implications of the findings are discussed.

REFERENCES

- Abraham C, Lindsay W, Lawrenson H 1991 The role of 'carers' of people with mental handicaps: an observational study across contexts. *Mental Handicap Research* 4: 20-40.
- Aitken C J, Tone E J, Smith J A, et al. 1993 Behavioural knowledge amongst staffing groups for the care of the intellectually disabled. *Behavioural Residential Treatment* 8(1): 1-8
- Allen D 1994 Towards meaningful daytime activity. In: Emerson E, McGill P, Mansell J (Eds). *Severe Learning Disabilities and Challenging Behaviours: Designing High Quality Services*. Chapman & Hall, London
- Allen D, McDonald L, Dunn C, Doyle T 1997 Changing care staff approaches to the prevention and management of aggressive behaviour in a residential treatment unit for persons with mental retardation and challenging behaviour. *Research in Developmental Disabilities* 18(2): 101-112
- Antonak R, Feilder C, Mulick J 1995 Influence of mental retardation severity and respondents characteristics on

- self-reported attitudes towards mental retardation and eugenics. *Journal of Intellectual Disability Research* 37(1): 75-83
- Bromley J, Emerson E 1995 Beliefs and emotional reactions of care staff working with people with challenging behaviour. *Journal of Intellectual Disability Research* 39(4): 341-352
- Cheseldine S, Stansfield J 1993 Gentle teaching: a guide for carers. University of Strathclyde, Glasgow
- Department of Health 1993 Services for People with Learning Disabilities and Challenging Behaviours or Mental Health Needs. Report of the Project Group. HMSO, London
- Donnellan A M, La Vigna G, Shoultz N, Fassbender L 1988 Progress Without Punishment. Teachers College Press, London
- Emerson E, Cummings R, Barret S, Hughes H, McCool C, Toogood A 1988 Challenging behaviour and community services 2: who are the people who challenge services? *Mental Handicap* 16: 16-19
- Felce D, Repp A 1992 The behavioural and social ecology of community houses. *Research in Developmental Disabilities* 13: 27-42
- Fitzsimmons J, Barr O 1997 A review of the reported attitudes of health and social care professionals towards people with learning disabilities: implications for education and further research. *Journal of Learning Disabilities for Nursing, Health and Social Care* 1(2): 57-64
- Greig R, Cambridge P, Rucker L 1996 Care management and joint commissioning. In: Harries J (Ed). *Purchasing Services for People with Learning Disabilities and Challenging Behaviour and Mental Health Problems*. British Institute of Learning Disabilities, Kidderminster
- Greig R, Peck E 1998. Is there a future for the community learning disability team? *Tizard Learning Disability Review* 3(1): 35-41
- Hastings R, Remington B 1994a Staff behaviour and its implications for people with learning disabilities and challenging behaviours. *British Journal of Clinical Psychology* 33: 423-428
- Hastings R, Remington B 1994b Staff behaviour and challenging behaviour: a reply to Clegg's commentary. *British Journal of Clinical Psychology* 33: 445-450
- Hastings R, Remington B 1994c Rules of engagement: towards an analysis of staff responses to challenging behaviour. *Research in Developmental Disabilities* 15: 279-298
- Hastings R, Remington B, Hooper G 1995 Experienced and inexperienced health care workers beliefs about challenging behaviours. *Journal of Intellectual Disability Research* 39(6): 22-34
- Hastings R, Reed T, Watts M 1997 Community staff causal attributions about challenging behaviour in people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities* 19(3): 238-249
- Hemming H, Lavender T, Pill R 1981 Quality of life of mentally retarded adults transferred from large institutions to new small units. *American Journal of Mental Deficiency* 86: 157-169
- Hile M G, Walbran B B 1991 Observing staff-resident interactions: what staff do, what residents receive. *Mental Retardation* 29: 35-41
- Hill B K, Bruininks R H 1984 Maladaptive behaviour of mentally retarded individuals in residential facilities. *American Journal of Mental Deficiency* 88: 380-387
- Johnstone S 1988 Guidelines for social workers on coping with violent clients. *British Journal of Social Work* 18: 377-390
- Kobe F, Mulick J 1995 Attitudes toward mental retardation and eugenics: the role of formal education and experience. *Journal of Developmental and Physical Disabilities* 7(1): 1-9
- Lyall I, Holland A, Collins S 1995 Offending by adults with learning disabilities and the attitudes of staff to offending behaviour. *Journal of Intellectual Disability Research* 39(6): 22-31
- McGill P, Mansell J 1995 Community placements for people with severe and profound learning disabilities and serious challenging behaviour. *Journal of Mental Health (UK)* 4(2): 183-198
- McKay C 1991 Sex, Laws and Red Tape: Scots Law, Personal Relationships and People with Learning Disabilities. Scottish Society for the Mentally Handicapped, Glasgow
- McKenzie K, Murray G, Matheson E, Higgon J (in press), in preparation. What is a learning disability? Do people need to be reminded? *Learning Disability Practice*
- Mansell J, Beasley F 1990 Severe mental handicap and problem behaviour: evaluating transfer from institutions to community care. In: Fraser W I (Ed). *Key Issues in Mental Retardation Research*. Routledge, London
- May D, Miller J, Linton P et al. 1994 Changing attitudes: a teaching initiative in the medical school. *British Journal of Learning Disabilities* 22 (2): 104-108
- Morch W, Eikeseth S 1992 Some issues in staff training and improvement. Special issue: community based treatment programs: some problems and promises. *Research in Developmental Disabilities* 13(1): 43-55
- Munton A, Mooney A, Rowland L 1995 Helping providers to improve quality of day-care provision: theories of education and learning. *Early Child Development and Care* 118: 15-25
- Nagarajaiah R, Chandrashekar D, Parthasarathy R 1994 Perceived skills of multipurpose health workers in the management of mental disorders. *NIMHANS Journal* 12(1): 15-20
- Paris M 1993 Attitudes of medical students and health care professionals toward people with learning disabilities. *Archives of Physical Medicine and Rehabilitation* 74: 818-825
- Slevin E 1995 Student nurses' attitudes towards people with learning disabilities. *British Journal of Nursing* 4(13): 761-766
- Slevin E, Sines D 1996 Attitudes of nurses in a general hospital towards people with learning disabilities: influences of contact and graduate/non-graduate status, a comparative study. *Journal of Advanced Nursing* 24(12): 1116-1128
- Taylor I, O'Reilly M, Lancioni G 1996 An evaluation of an ongoing consultation model to train teachers to treat challenging behaviour. *International Journal of Disability, Development and Education* 43(3): 203-218
- Thurman S 1997 Challenging behaviour through communication. *British Journal of Learning Disabilities* 25: 111-116
- Wilson P, Reid D, Korabek-Pinowski C 1991 Analysis of public verbal feedback as a staff management procedure. *Behavioural Residential Treatment* 6(4): 263-277
- Wing L 1996 *The Autistic Spectrum: A Guide for Parents and Professionals*. Constable & Co. Ltd, London

Psychodynamic psychotherapy in learning disability: theory and practice revisited

A. Hassiotis

Despite evidence that psychodynamic psychotherapy can be successfully applied to people with learning disabilities, it is hardly ever available in standard practice. Most specialist services for people with learning disabilities have no access to a qualified therapist, and adult psychotherapy departments refuse to see such patients or supervise staff who are willing to engage in this work, claiming a lack of knowledge of learning disabilities. As the National Health Service is moving further towards cost-effective treatments, individuals with learning disabilities will on the one hand become increasingly unable to access diverse treatment modalities, and on the other limited treatment options will hinder research into the efficacy and suitability of such treatments for this population. This paper is a brief review of our current knowledge on the application of psychodynamic psychotherapy in the field of learning disabilities and aims at opening up the debate within the framework of evidence-based practice in mental health.

INTRODUCTION

The psychological needs of people with learning disabilities have gone under-recognized for centuries. Derogatory terminology and institutional practices, before the advent of community care and role valorization, had created a mentality of therapeutic pessimism and despair. This is abundantly obvious not only in the dearth of literature on psychodynamic psychotherapy for people with learning disabilities but also in the largely descriptive accounts and lack of research evidence. Despite the fact that opinions have changed considerably where psychodynamic psychotherapy is concerned for adults and children of normal intelligence (Tillett 1996), little effort has been made to provide similar insights to the application of this treatment to the learning disabled. Many questions regarding efficacy, specificity and indications for use remain unanswered today.

THEORETICAL FRAMEWORK

Webster (1970) argued that there are additional factors that contribute to the 'primary psycho-

pathology of mental retardation'. He found that proportionate to the degree of intellectual deficit was a common condition of 'benign autism, that is passivity, avoidance of novelty and simplicity of emotional response'. In the last 20 years pioneering work by Professor Bicknell and subsequently the Tavistock Clinic in London has created a framework that has allowed the recognition of internal psychic states in learning disabled individuals. More in depth study of the psychological makeup of disabled children and adults led Sinason (1986) to develop the concept of 'secondary handicap', which she considered to be associated with experiences of trauma and abuse and manifests itself in the increased compliance and false sense of happiness in many learning disabled individuals.

Hollins (1988) explored the significance of the three secrets, i.e. sexuality, death and handicap; Stokes & Sinason (1992) distinguished between emotional and cognitive intelligence that is, despite the limited cognitive capacity, individuals with learning disabilities may be capable of emotional understanding and growth. Additional problems also arise from the many physical and psychological impairments associated with learning disabilities. The individuals need more long-term support and are more dependent

Dr Angela Hassiotis
MA MRCPsych, Senior Lecturer, Developmental Disorders and Learning Disability, Department of Psychiatry and Behavioural Sciences, 2nd Floor, Wolfson Building, Riding House Street, London W1N 8AA, UK.

Paper accepted: 18 January 1999

Learning disability services

A survey of general practitioners' opinions

Karen McKenzie, George C Murray and Edith Matheson

Introduction

In the past 20 years services for individuals with a learning disability have gradually altered. From being hospital based, services have developed into a range of community based provisions to meet the needs of this group.

A number of reports over the years have identified primary health care teams as the professional group responsible for meeting the health needs of individuals with a learning disability.^{1,2} This culminated in the publication of the Health of the Nation Strategy for People with Learning Disabilities,³ which emphasised the need for health promotion surveillance and care among this population.

However, this emphasis has not been accepted wholeheartedly by primary health care professionals,^{4,5} or by carers of individuals with a learning disability⁶ and a number of barriers to receiving good health care have been identified. Lawrie⁷ highlights difficulties for people with a learning disability in communicating their symptoms, or accessing health education materials suitable for their needs.⁸ A recent study of the satisfaction of learning disabled people with the health care they had received found high levels of dissatisfaction, with particular emphasis on professionals' failure to provide adequate explanations.⁹ A further barrier is that GPs are sometimes unclear about their exact remit when it comes to providing services to this group. Kerr et al⁴ found that while the GPs surveyed viewed themselves as responsible for the general medical care of individuals with a learning disability, they were generally opposed to the idea of providing regular structured health checks and health promotion.

This confusion is of particular concern, as it increasingly being recognised that there continues to exist large areas of unmet health care needs in people with a learning disability^{10,11,12} and also that people with learning disabilities experience a greater number of health problems than the general population.^{3,13,14}

A number of health initiatives have been proposed in an attempt to improve health care for this group with the emphasis being on closer liaison between primary health care teams and specialist learning disability services,¹⁴ improved professional training¹⁵ and education.¹³ In addition, there has been an emphasis on the need to establish a register of the medical needs of individuals with a learning disability.¹⁶

A significant barrier to the provision of the targeted health care and education was found to be the inability of GPs to identify the individuals on their caseloads with a learning disability.¹⁰ Such initiatives however rely largely on primary health care teams being aware of the specific health needs of individuals with a learning disability and expressing interest in closer links with specialist services.^{4,7}

Research suggests that misconceptions relating to people with a learning disability are common among the general population¹⁷ and that direct care staff may lack the knowledge and understanding to successfully deal with more complex needs.¹⁸ In relation to GPs, Rodgers⁶ found that carers felt their GP did not understand the complex issues associated with having a family member with a learning disability.

The aims of this study are as follows:

1. To examine GPs' understanding of the term 'learning disability' as compared with recognised diagnostic criteria¹⁹
2. To examine the extent to which GPs regarded the diagnosis and provision of health care services for people with a learning disability as being their own as opposed to the remit of specialist services.
3. To establish the number of GPs who are able to identify individuals with a learning disability on their caseload.
4. To ascertain what GPs themselves considered to be the main health care needs of people with a learning disability.
5. To examine the relationship between levels of GPs' understanding of the term learning disability as measured against diagnostic criteria¹⁹ and their confidence in providing for the health care needs of this group.

Method

A questionnaire was designed to survey general practitioners' opinions about issues relating to the provision of learning disability services (see Appendix 1), the design of which

was based upon previous research findings which highlighted the following issues:

- a. The limited awareness of some GPs of the health care needs of people with a learning disability.
- b. The difficulty GPs face in quickly and easily identifying the number of individuals with a learning disability on their caseload.
- c. The ongoing debate about the appropriateness of the health care needs of people with a learning disability being met by primary health care as opposed to specialist teams.
- d. Misconceptions about the actual health care needs of people with a learning disability.

Sixty two questionnaires were sent out to all the GPs in a largely rural area of Scotland. The area was traditionally dominated by three long-stay hospitals for individuals with a learning disability: two of these hospitals have only recently closed, while a third closed a number of years ago.

GPs in this area had previously provided a service for members of this group living in the community, however, with the closure of three local hospitals, GPs had been required to take on the responsibility of providing for an increasing population of people with a learning disability, with greater levels of need.

Results

Understanding of the term "learning disability"

GPs were asked their opinion regarding the criteria, which defined a learning disability using the following definition as a comparator.¹⁹

These are:

- Significantly sub-average intellectual functioning with an IQ of approximately 70 or less.
- Concurrent deficits or impairments in present adaptive functioning in at least two of the following: communication, self-care, home living, social/inter personal skills, use of community resources, self direction, functional academic skills, work, leisure, health and safety.
- Onset is before adulthood.

Responses were scored according to whether they made either implicit or explicit reference to each of the above criteria (ie intellectual

Table 1
Examples of acceptable responses

Factor	Example
Impaired intellect	Slower than normal Low intelligence
Impaired adaptive functioning	Requires assistance with daily living Deficits in living skills
Childhood onset	Slow at school Genetic defect

Table 2
Number and percentage of GPs identifying each of the criteria of a learning disability

	Impaired intelligence	Impaired adaptive functioning	Childhood onset before adulthood
No of GPs	30	7	3
% of GPs	88.2	20.6	8.8

Table 3
Number and percentage of GPs identifying criteria

	None	One	Two	Three
No of GPs	3	23	7	1
% of GPs	8.8	67.6	20.6	2.9

impairment; impairments in adaptive functioning and onset before childhood).

Table 1 outlines possible examples of acceptable responses.

Thirty-four questionnaires were returned, giving a response rate of 55%. Table 2 illustrates the number of GPs correctly identifying each of the three criteria for a learning disability.

As can be seen, 88.2% of GPs correctly identified intellectual impairment as a criteria of learning disability, while only 20.6% mentioned impaired adaptive functioning and only 8.8% identified onset before adulthood.

A chi-square goodness-of-fit test demonstrated that a significant number of GPs did not identify impaired adaptive functioning ($\chi^2 = 11.8$; $df = 1$; $p < 0.01$), or onset before adulthood ($\chi^2 = 23$; $df = 1$; $p < 0.01$).

Table 3 illustrates the number of GPs identifying none, one, two or three of the criteria for a learning disability. As illustrated in this table only one GP identified all three criteria and 67.6% identified only one.

Identifying people with a learning disability on GPs caseloads

A significant number ($n = 29$; 85.3%) of GPs felt unable to identify clients with a learning disability on their caseload ($\chi^2 = 16.94$, $df = 1$, $p < 0.01$).

Diagnosing a learning disability

A significant number ($n = 30$; 88.2%) of GPs felt unable to diagnose whether an individual on their caseload had a learning disability ($\chi^2 = 19.9$, $df = 1$, $p < 0.01$), with this percentage feeling this was a role for a specialist.

It was however found that there was no significant relationship between the extent to which a GP felt able to diagnose a learning disability themselves and their actual knowledge of this criteria.

Meeting the health care needs of individuals with learning disabilities

Table 4 illustrates the extent to which general

practitioners felt that the health care needs of people with a learning disability should be met by a specialist team, as opposed to by themselves.

The mean score was found to be 7.4 (S.D. = 1.75) indicating that the GPs surveyed felt that meeting the health care needs of individuals with a learning disability was more a specialist function: A significant relationship between GPs expressed opinion about ability to diagnose a learning disability and opinion of whether the provision of health care needs was a primary care or specialist role, was found such that those GPs who feel they are in a position to diagnose a learning disability themselves score lower on the continuum (mean = 5.75) than those who feel it requires a specialist assessment (mean = 7.62). ($F = 4.44$, $df = 1$, $p < 0.05$).

Health care needs

The health care needs of individuals with a learning disability most commonly cited by GPs is shown in Table 5.

Only one significant relationship was found between the health needs of people with a learning disability identified by GPs and their knowledge of the criteria for a learning disability. GPs who highlighted issues relating to personal safety identified significantly more of the criteria for a learning disability ($F = 6.67$; $df = 1$; $p < 0.05$).

Discussion

A significant number of GP's in the current study were aware that intellectual impairment is a criterion of learning disability with over 88% identifying this factor. They did significantly worse in relation to the remaining criteria with only 20.6% identifying deficits in adaptive behaviour skills and 8.8% naming childhood onset. In addition, only one GP identified all three criteria for a learning disability and three respondents did not identify any.

Assessment of the criteria which determines the diagnosis of learning disability, in particular intellectual functioning, has traditionally been

the remit of psychologists,²⁰ and it may be that while GP's have made referrals to psychologists for this part of the assessment, they are less aware of the other aspects of a learning disability. Psychologists may, therefore, have a role in educating GP's about the overall criteria for a learning disability.

Somewhat surprisingly, there was no significant relationship found between GP's actual knowledge of the diagnostic criteria for a learning disability and their confidence in diagnosing it themselves. This may reflect a correct assumption that diagnosis is generally considered to be a specialist assessment.²⁰ However, given that the GP may be the professional whom the individual with a learning disability has initial and most frequent contact,⁵ a working knowledge of the criteria for diagnosing a learning disability would be required to ensure that the individual had access to any specialist services, support or assessment subsequently required.

In tandem with lack of confidence in diagnosing a learning disability, a significant proportion (85%) of GPs felt unable to identify the individuals on their caseload with a learning disability. This means targeted health promotion, education or screening for this population would be difficult, if not impossible to provide. This finding is common^{4,5} despite a number of researchers recommending adoption of a register of the medical needs of people with a learning disability.^{10,16}

All of the above findings suggest significant barriers to individuals with a learning disability receiving appropriate health care.

The responses of the GP's in this study generally indicated that the health care needs of this population should be met more by a specialist team, as opposed to themselves. This is in contrast to a number of reports which identify primary health care teams as the responsible professional group for meeting these needs.^{1,2,21} The role of specialist teams in the provision of health care has however been seen as central in many previous studies which have assessed GP opinion.^{4,12} There would therefore appear to be some conflict between health care policy and recommendations, and general practitioners' confidence in adopting such roles.

Previous studies¹⁴ of both general nursing staff and GP's indicated that confusion about the abilities, needs and nature of individuals with a learning disability was linked with support of segregative health care practices.^{22,23} A similar process may be occurring with GPs, with limited training in respect of health care needs of people with learning disabilities, leading to the view that such needs can only be met by specialist services.

It may also be argued that an unfair expectation has been made of general practitioners to carry the medical responsibility for this client group. Given the complex and multiple health needs of some of these individuals^{6,24} and the under-resourcing in some areas of specialist community services, GPs may be unable to meet these expectations.

The most commonly cited health care needs related to the recognition of the need for specialist services (24%) in relation to difficulties such as challenging behaviour,

Table 4
The extent to which GPs felt that health care needs of people with a learning disability should be met by a specialist team as opposed to by themselves

	Position on Continuum										
	Needs met entirely by GP										Needs met entirely by specialist team
	1	2	3	4	5	6	7	8	8.5	9	10
No	0	0	1	0	6	3	5	7	1	9	2
%	0	0	2.9	0	17.6	8.8	14.7	20.6	2.9	26.5	5.9

Table 5
Number of GPs and percentage of responses identifying the most commonly cited health care needs

Factor	Number of GPs	% of responses
Need for specialist health services	17	24
Access/recognition of specific health needs	17	24
Social care issues	15	21
Don't know	4	6
No different to general population	4	6
Epilepsy	4	6
Safety issues	3	4
Physical/mobility issues	3	4
Infection	3	4
Sexual health	1	1
Total	71	100

(It should be noted that some GPs identified more than one health care need)

QUALITY COMPUTERS & NETWORKS FOR PROFESSIONAL USERS

-  High performance Pentium Systems for all General Practice applications
-  Unix and Windows NT compatible Fileservers - ready for the new generation Gpass system
-  PC Workstations - Volume discount for lower cost
-  Office Software plus on-line Voice Dictation
-  Network Design and Installation Service
-  Comprehensive Maintenance and Support Services for all aspects of your installation
-  Training Courses and Support in wide range of Software Applications and Network Administration
-  Consumable Supplies
-  Year 2000 Compliance Service



Call us FREE on

0800 980 4878

Eagle Computers Ltd

Craigton, Milngavie G62 7HG

Fax: 0141 956 6659

Email: info@eaglecomputers.demon.co.uk

**COMPUTERS
& NETWORKS
YOU CAN TRUST
AT A PRICE YOU
CAN AFFORD**

mental health problems, or the need for occupational therapy. Similarly, a further common response recognised the specific health care needs of this population and realised that managing and monitoring health, as well as access to health services, may be different to that of the general population.

The third most commonly cited factor was social care issues — for example the need for appropriate housing, for day care etc indicating the overlap between community care and health care policies. This highlights the need for adequate multi-disciplinary care packages to be developed for individuals with a learning disability living in the community. In addition the specialist learning disability teams and social services have a responsibility to inform general practitioners about the support and services they offer.

Twelve per cent of general practitioners were either unaware of any particular health needs of individuals with a learning disability, or felt that these needs were no different to those of the general population. This finding is somewhat concerning given the increasing acknowledgement that people with all levels of learning disabilities have specific and additional health needs as compared with the general population.^{6,23}

The present study does however have a number of limitations. The response rate of 55% is higher than that typically found in postal surveys,²⁵ but it does indicate that a high percentage of GPs did not actually respond. It is possible that this group may have had opinions which differed from those of the respondents. However, a number of the findings are consistent with previous studies^{4,13} indicating that the views and knowledge of the respondents in the present study are representative of this group.

In summary, this survey highlights the uncertainty felt by a group of general

practitioners in diagnosing, identifying and providing for the health care needs of individuals with a learning disability.

Results suggest the need for specialist learning disability services to form closer links with GPs and a more educational role in primary care health teams.

Karen McKenzie is a Consultant Clinical Psychologist at Roodlands Hospital, Haddington; George C Murray is a Consultant Clinical Psychologist at Dingleton Hospital, Melrose; Edith Matheson is an Assistant Psychologist, also at Roodlands Hospital Haddington.

REFERENCES

- 1 Report of the Committee of Enquiry into Mental Handicap Nursing Care. Jay Report (CMND 7468). DHSS (1979). HMSO, London.
- 2 Department of Health. Caring for People. Community care in the next decade and beyond Government White Paper (CM555). HMSO, London. 1989.
- 3 Department of Health. The Health of the Nation - a strategy for people with learning disabilities. HMSO, London. 1995.
- 4 Kerr M, Dunstan F, Thabar A. Attitudes of general practitioners to caring for people with a learning disability. Br J General Practice, 1996; 46(403): 92-94.
- 5 Lennox NG, Diggins JN, Ugoni AM. The general practice care of people with intellectual disability: barriers and solutions. Journal of Intellectual Disability Research. 1997; 41(5): 380-390.
- 6 Rodgers J. Primary health care provision for people with learning disabilities. Health & Social Care 1993; 2: 11-17.
- 7 Lawrie K. Better health care for people with learning disabilities. Nursing Times, 1995; 91: 32-34.
- 8 Kelly MS, Gottesman RL. Adults with severe reading and learning difficulties: a challenge for the family physician. Journal of the American Board of Family Practice. 1997; 10(3): 199-205.
- 9 Mental Health Foundation Building Expectations. Mental Health Foundation. London. 1996
- 10 Howells G. Are the medical needs of mentally handicapped adults being met? JRCGP 1986; 36: 449-453.
- 11 Wilson D, Haire A. Health care screening for people with a mental handicap living in the community. Br Med J 1990; 301: 1379-1381.
- 12 Martin DM, Roy A, Wells MB. Health Gain through Health Checks: improving access to primary health care for people with intellectual disability. Journal of Intellectual Disability Research. 1997; 41(5): 401-408.
- 13 Thornton C. Meeting the health care needs of people with learning disabilities. Nursing Times. 1997; 93(20): 52-54.
- 14 Martin BA. Primary Care of Adults with Mental Retardation living in the community. American Family Physician. 1997; 56(2): 485-494.
- 15 Turner S, Moss S. The health needs of adults with learning disabilities and the health of the nation strategy. Journal of Intellectual Disability Research. 1996; 40(5): 438-450.
- 16 Primary care for people with a mental handicap. Royal College of General Practitioners. Occasional Paper 47. 1990; RCGP, London.
- 17 Antonak RF, Fiedler, CR, Mulick JA. Misconceptions relating to mental retardation. Mental Retardation 1989; 27(2): 91-97.
- 18 Hastings RP. Staff strategies and explanations for intervening with challenging behaviours. Journal of Intellectual Disability Research. 1996; 40(2): 166-175.
- 19 American Psychiatric Association. Diagnostic and Statistical Manual of mental disorders. Fourth Ed. A.P.A. Washington D.C., USA. 1995
- 20 Burton M. Intellectual Disability: developing a definition. Journal of Learning Disabilities for Nursing, Health & Social Care 1997; 1(1): 37-43.
- 21 A review of neighbourhood nursing. Cumberledge Report. DHSS (1986). HMSO, London.
- 22 Slevin E, Sines D. Attitudes of Nurses in a general hospital towards people with learning disabilities influences of contact undergraduate-non-graduate status - a comparative study. Journal of Advanced Nursing. 1996; 24(12): 1116-1126.
- 23 Murray M, Chambers M. Effects of contact on nursing students' attitudes to patients. Nurse Education Today. 1991; 11: 363-367.
- 24 Langan, J. Paid and unpaid carers: their role in, and satisfaction with, primary health care for people with learning disabilities. Health & Social Care 1994; 2: 357-365.
- 25 Babbie ER. The practice of social research. Wadsworth. California. 1979

**Ivanhoe
Printing
Company
Limited**



For all your printing requirements

Riverside Works
Eskmills
Musselburgh
East Lothian
EH21 7PE

Tel: 0131 665 8444 Fax: 0131 653 2691

- Practice stationery
- Practice information leaflets
- Patient information leaflets
- Colour brochures

**For more information and a competitive
quote please call us on
0131 665 8444**

WHAT IS LEARNING DISABILITY?

DO PEOPLE NEED TO BE REMINDED?

Knowledge levels of professionals involved on a day-to-day basis with people with learning disabilities can often leave a lot to be desired. This study aimed to highlight areas where there is room for improvement

THE 1960s SAW the beginning of a major change in both the philosophy and policy regarding the care and support of people with learning disabilities (Wolfensberger 1972). This change led to the closure of many long-stay hospitals and the resettlement of people into smaller homes in the community.

Crucial to the success of supporting people in the community is the level of staff knowledge and understanding of learning disability. This is highlighted by a number of studies in which a lack of training for staff is cited as the main rea-

FIGURE 1.
Type and numbers of staff participating in the study

STAFF GROUP	NUMBER
Health setting	47
Residential setting	30
Day care setting	39
General Practitioners	27
Total	163

son for staff burnout and job turnover (Sharrad 1992, Bromley and Emerson 1995). Furthermore, a lack of knowledge and understanding of people with learning disabilities can increase the incidence of challenging behaviour (Hastings and Remington 1994, Bromley and Emerson 1995), sexual abuse (Stromsness 1993) as well as impair the appropriate expression of a person's sexuality (McCabe 1993).

If knowledge is so important, it is surprising that few studies have directly assessed the level of understanding of learning disability amongst specialist and non-specialist staff. Therefore, the current study set out to measure the understanding of learning disability of General Practitioners as well as staff working in health service, residential and day care settings.

Method

A random sample of 163 staff was selected from these four staff groups who were working in two mainly rural areas in Scotland (see figure 1.)

All participants were supporting individuals with learning disabilities as their main job with the exception of General Practitioners. They were asked to respond to the following questions:

- How long have you worked with people with learning disabilities?
- What is your understanding of the term 'Learning Disability'?

Responses were recorded verbatim or written by the participants in the presence of a researcher. The responses were analysed by comparing them

FIGURE 2.
DSM IV criteria for learning disability

American Psychiatric Association's criteria for Learning Disability

1. Significantly sub-average intellectual functioning with an IQ of approximately 70 or below on an individually administered IQ test.
2. Concurrent deficits or impairments in at least two of the following:
 - communication
 - self-care
 - home living
 - social-interpersonal skills
 - use of community resources
 - self-direction
 - functional academic skills
 - work
 - leisure
 - health and safety
3. Onset before 18 years



Laurence Bulaitis

Managers and educators need to ensure that staff have clear and accurate information about learning disability.

the DSM IV (American Psychiatric Association 1994) criteria for diagnosing learning disability, shown in figure 2.

Responses were allocated a point for each criteria the respondent explicitly or implicitly mentioned (range 0-3). Table 1. gives an example of acceptable responses for each criteria. A random sample of 72 responses were scored by two independent raters to assess the reliability of this rating. Results showed that there was significant agreement between raters for IQ ($K = 0.94$, $P (0.01)$), adaptive skills criteria ($K = 0.91$, $P (0.01)$) and childhood onset criteria ($K = 0.78$, $P (0.01)$).

Results

Table 2. (overleaf) shows the percentage of participants in each group who correctly identified each of the criteria for learning disability.

As far as intellectual impairment was concerned, General Practitioners scored best, though no significant difference could be found between the groups on this criterion. However, a significant

TABLE 1.	
Example of scored responses	
DSM Criteria	Example response
Intellectual impairment	Slower to learn People with a low IQ
Impairment of adaptive behaviour skills	Unable to grasp everyday self-care tasks Needs support to live independently
Childhood onset	Onset before adulthood Slow at school

cant association was found between staff groups regarding the other criteria with the health group out-performing others in the adaptive skills ($\chi^2 = 26.48$, $df = 3$, $p (0.01)$) and childhood onset criteria ($\chi^2 = 31.1$, $df = 3$, $p (0.01)$). Cochrane's Q test was also applied to the data

WHAT IS LEARNING DISABILITY?

DO PEOPLE NEED TO BE REMINDED?

TABLE 2.

Percentage of each staff group correctly-identifying DSM IV criteria

Criteria	Residential	Day Care	Health	G.P.	Total
Intellectual impairment	66.0	69.2	72.3	85.2	71.8
Impairment in adaptive functioning	30.0	43.6	70.0	14.8	42.3
Childhood onset	12.0	12.8	53.2	11.1	23.9

show that the frequency of correct responses differed significantly across the three criteria ($Q = 76.76$, $df = 2$, $p(0.01)$). Participants were significantly more likely to identify intellectual impairment than either the adaptive skills ($\chi^2 = 23.5$, $p(0.01)$) or childhood onset ($\chi^2 = 64.45$, $p(0.01)$) criteria. Similarly, participants were more likely to identify the adaptive skills as a criterion than childhood onset ($\chi^2 = 15.02$, $p(0.01)$).

Table 3. shows the percentage of participants in each professional group who were aware of three, two, one or no criteria of learning disability.

The results show that there was a statistically significant difference between the groups ($F = 16.11$, $df = 3$, $p(0.01)$) with the health group scoring the highest and the residential group the lowest in terms of their knowledge of learning disability.

Finally, excluding the General Practitioner's group, a Pearson's correlation co-efficient was used to demonstrate that greater experience of working with people with learning disabilities increased the likelihood of greater knowledge of the criteria for learning disability ($R = 0.24$, $p(0.01)$).

Discussion

Although this study included relatively small numbers of participants within each staff group,

it is unlikely that all of the respondents who were chosen at random had markedly different levels of knowledge than those who did not participate. Furthermore, participants were drawn from two large geographical areas and across a range of services.

Given this, we should be concerned by the low level of knowledge of the characteristics of learning disability amongst the groups of participants. This finding is consistent with other studies that have uncovered similarly low levels

of knowledge amongst support staff (Sharrad 1992). The health group had a significantly higher level of knowledge than other groups. This might be expected, as the work of health service staff often brings them into contact with people who have more specialist needs and includes more detailed assessment and treatment approaches. More detailed study and comparison with other types of staff could clarify this point. However, even amongst this group, only one third of participants were aware of all three criteria.

Another surprising feature of this study is that General Practitioners had the highest level of knowledge of the intellectual impairment cri-

TABLE 3.

Percentage of participants aware of none to three of criteria for learning disability

Criteria	Residential	Day Care	Health	G.P.
0	24.0	10.3	4.3	11.1
1	60.0	56.4	31.9	70.4
2	14.0	30.8	27.7	14.8
3	2.0	2.6	36.2	3.7

Traditional classifications of learning disability can rightly be criticised for emphasising the ways in which people with learning disabilities are different from other people

terion. This may be accounted for by the fact that General Practitioners frequently refer to more specialist staff for intellectual assessment

(Burton 1997). Therefore, intellectual impairment is a more salient characteristic than for other groups of staff who are already working with people who have been assessed. However, their comparative lack of knowledge of other characteristics may indicate a lack of appreciation of the day-

to-day needs of people with learning disabilities. Once again, more detailed investigation is needed to confirm this view.



For other groups of staff, their greater knowledge of impairments in adaptive skills may be explained by the approaches they use in their everyday work with people with learning disabilities. For example, many approaches include the application of behavioural techniques (La Vigna and Donnellan 1986) to improve skills or to increase opportunities for people to use existing skills.

In relation to experience, it was found that knowledge improved with greater experience. This is consistent with studies that have shown that increased contact with people with learning disabilities leads to increased knowledge of specific interventions (Bromley and Emerson 1995) and more positive attitudes (Hames 1996). It is unclear, however, whether this is because of increased contact alone or because more experienced staff are more likely to have received more training opportunities. Further research is needed to clarify this.

Finally, the low level of knowledge of staff working exclusively with people with learning disabilities may be influenced by the misunderstanding and mis-application of current philosophies (Gates 1997) such as normalisation. Traditional classifications of learning disability can rightly be criticised for emphasising the ways in which people with learning disabilities are different from other people (Clegg 1993). Equally, it is not in the interests of people with learning disabilities to deny any impairments or limitations they face in their day-to-day lives. Managers and educators need to ensure that staff have clear and accurate information about learning disability.

Karen McKenzie, Consultant Clinical Psychologist, Roodlands Hospital, East Lothian.

George Murray, Consultant Clinical Psychologist, Dingleton Hospital, Melrose.

Edith Metheson, Assistant Psychologist, Roodlands Hospital, East Lothian.

John Higgon, Trainee Clinical Psychologist, Royal Edinburgh Hospital.

Bridget Sinclair, Service Performance Manager, Dingleton Hospital, Melrose.

References

- 1 American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders*. 4th Edition. Washington DC: APA.
- 2 Bromley S. and Emerson E. (1995) Beliefs and emotional reactions of care staff working with people with challenging behaviour. *Journal of Intellectual Disability Research*. 39, pp 341-352.
- 3 Burton M. (1997) Intellectual Disability: developing a definition. *Journal of Learning Disabilities for Nursing, Health and Social Care*. 1(1) pp 37-43.
- 4 Clegg J.A. (1993) Putting people first: a social constructionist approach to learning disability. *British Journal of Clinical Psychology*. 32, pp 389-406.
- 5 Gates B. (1997) What is learning disability? A question of semantics or political correctness? *Journal of Learning Disabilities for Nursing, Health and Social Care*. 1(2) pp 51-52.
- 6 Hames A. (1996) The effects of experience and sexual abuse training on the attitudes of learning disability staff. *Journal of Intellectual Disability Research*. 40(6) pp 34-43.
- 7 Hastings R.P. and Remington B. (1994) Staff behaviour and its implications for people with learning disabilities and challenging behaviour. *British Journal of Clinical Psychology*. 33, pp 423-438.
- 8 La Vigna G.W. and Donnellan A.M. (1996) *Alternatives to punishment: solving behaviour problems with non-aversive strategies*. New York: Irvington.
- 9 McCabe M.B. (1993) Sex education programmes for people with mental retardation. *Mental Retardation*. 31(6) pp 377-387.
- 10 Sharrod H.E. (1992) Feeling the strain: job stress and satisfaction of direct care staff in the mental handicap service. *British Journal of Mental Subnormality*. 7, pp 32-38.
- 11 Stromsness M. (1993) Sexually abused women with mental retardation. Hidden victims, absent resources. *Women and Therapy*. 14(3-4) pp 139-152.
- 12 Wolfensberger W. (1972) *The principle of normalisation in human services*. Toronto: National Institute of Mental Retardation.